

# THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

---

VOLUME XXVI

DECEMBER 1918

---

NUMBER 10

## THE FIRST DAY

---

H. V. CHURCH

Principal J. Sterling Morton High School  
Cicero, Illinois

---

The conductor of a chorus strives for good attack. It is very important for the success of his chorus and for his reputation as a director. Those who hear music, although they have no reaction whatever when they see *attacca con brio*, appreciate the result obtained when a large chorus as with one voice strikes the first note with feeling and precision. I know of a high-school principal who is more or less of a musician, who strives to have the attack of his faculty and of his student body on the first day of the fall term such that the arrayed group swings into the rhythm of the high-school work with zeal and with confidence. My interest in this achievement led me to inquire how this fine attack was obtained. I soon found that there was, as with a chorus, long and careful preparation.

The school opened each fall the first week in September, but in the preceding April plans for the opening day were brewing. In the first place, every teacher in the high school had some administrative duties. The plan of having every

teacher an adviser contributed to the success of the opening day. The women of the faculty counseled the girls, and men advised the boys. There was therefore one adviser to every twenty pupils. At the beginning of each school year, after the pupils new to the school were adjusted to their school surroundings, they met their advisers in private conference, talked over their plans for high school and for the years beyond, and laid out on a somewhat elaborate blank a four-year high-school course. On this form in the allotted place the reasons for the course agreed upon were given.

Name: EDITH LARNED.....Tel. 814-J

Date of birth: April 8, 1902. Adviser: MISS HESSLER

Parent's name: JOSEPH LARNED

Parent's address: 1434 Cedar Street

Spelling

1. Biology
2. Biology
3. Physical Training
4. Mathematics I
5. English IIb
6. Lunch
7. Modern History
8. Sewing
- 9.
- 10.
- 11.

A second item that made the first day a going day was the early preparation of the program of recitations. In April a schedule of courses to be offered in the fall semester was drawn. This was placed in the hands of each member of the faculty, and their work as advisers took on a new aspect. They now drew from the files the four-year plan which they had laid out with each pupil whom they advised, and in

conference with the pupil adjusted the next semester's work of the planned course to the program of the coming fall. Each pupil in April or early in May made out his registration card for the next semester. A typical card of a second year pupil is given on the preceding page.

Thus in May all pupils in school, except those in the graduating class were scheduled for the next semester's work. When all the cards that had English II*b*, first-semester second-year English, on them were in, the English teachers arranged these cards in a number of piles, about thirty or thirty-five cards to a pile. This is more than the allotted number for classes, but it is always necessary to allow for shrinkage. All cards of pupils of the English II*b* group who could do superior work were stacked together, all cards of those who did inferior work were placed in another pile, and thus there were left a number of piles of cards of thirty or more to a pile of pupils who did mediocre work. These groups of English II*b* were assigned to the seven or eight English teachers for

Name: EDITH LARNED.....Tel. 814-J  
 Date of birth: April 8, 1902. Adviser: MISS HESSLER  
 Parent's name: JOSEPH LARNED  
 Parent's address: 1434 Cedar Street

Spelling—316

1. Biology—311
2. Biology—311
3. Physical Training—Girls' Gym.
4. Mathematics I—216
5. English II*b*—213
6. Lunch
7. Modern History—122
8. Sewing—308
- 9.
- 10.
- 11.

the fifth period of the day. In the same way the two or three sections of Mathematics I were assigned. When this had been done for each of the subjects, the room numbers could be added to the cards, and the card completed (p. 723).

When this had been done for the Senior, Junior, and Sophomore classes of the following September, copies of these registration cards were made out on a form called "Guide Card." (See Guide Card, p. 728).

While this was being done for the pupils in the high school, a similar procedure was carried on in the grammar schools which were contributory to the high school. The principal went to each one of the eighth grades in the high-school district. He talked to the classes, telling them of the high school, of the value of further training, and answered questions about the high school and the groups of studies. He left literature about the high school and registration cards for the eighth-grade pupils. They were asked to talk over with the home folk the different curricula offered and then come back to school and with the help of the eighth-grade teacher make out the list of studies for the first semester in high school. An effort was made to have each pupil in the eighth grades sign a registration card. The signing of the card was considered as a long step taken in selling the goods. The eighth-grade pupil who signed was looked upon as a prospective customer. The names of eighth-grade pupils who were not planning to attend high school were particularly sought, and to the father of such a letter similar to the one below was sent:

May, 23, 1918

MY DEAR MR. CORNWALL:

I saw John in the Roosevelt School last Monday. I hope you are planning to send him to high school in September, for in the last month we have found positions for over fifty of the graduates of our two-year and four-year courses, and not one of these will receive less than twelve dollars a week. You see it will pay you to send him to high school.

Very sincerely yours,

MR. JAMES CORNWALL  
St. Paul, Minnesota



A follow-up letter a few weeks later, with literature advertising the high school inclosed, was also sent. An accurate report on the business this advertising brought cannot, of course, be had. The principal, however, believed that it was a large factor in bringing the increased attendance of which the school boasts.

When all the registration cards from the eighth grades were in, the clerk had his little task. The arrangement of the English classes was taken up first. Of the 300-odd Freshmen cards, 70 were graded "superior" by the eighth-grade teachers, 60 are in the poor group, and the rest are of medium ability. With a sheet of paper 50 inches by 14 inches blocked out as below, the distribution of the Freshmen cards for the English can be quickly accomplished by distributing the cards graded "medium" to the spaces labeled "medium," giving 35 cards to each of the spaces except the "low" sections, which will have 30 apiece.

50"					
1"	6"	6"	6"	6"	
	Room 109 Mr. A Medium	Room 212 Miss B Medium	Room 213 Miss C Medium	Room 204 Miss D Medium	
1st	35	35	35	35	
			Low	Medium	
2d	(No class the second period)	(No class the second period)	30	35	

When the cards are all distributed with the proper number to each stack, the clerk takes up the pile on Mr. A's block and puts the room number 109 on each card opposite English.

Then a triplicate list of the pupils that are to go to Mr. A in Room 109 the first period is typed. This same process is followed for each of the other stacks on the 50x14 sheets. And English I is done. The other studies are handled in a similar manner, and the clerk at his leisure during the summer can prepare the special guide cards for these incoming Freshmen.

The pupils continuing in school until the closing day in June report, when the assembling-bell rings every morning, in their several rooms, where the attendance is taken and where for ten minutes a study of words is pursued. Some written work also is done. Below is a model of the latter type of work.

#### SPELLING

##### I

1. avalanche, n.
2. ăv' á lănch.
3. L. *ad*—to+*vallis*—valley.
4. a) An avalanche is a large mass of ice and snow, or of earth and rocks, sliding swiftly down a mountain side.  
b) An avalanche is a sudden great or irresistible descent.
5. a) A village in Northern Italy was completely buried by an avalanche from the Alps.  
b) An avalanche of hostile troops descended upon our soldiers.

##### II

Two words are studied each day. In the written work, as well as in the oral work, the word is first spelled solid, then syllabicated with diacritical markings. The derivation and history of the word follow. If the word has two or more meanings, these are given and differentiated. And finally, as the crux of the recitation, the pupil is asked to invent sentences that not only contain the word but also give by their content some clew to the meaning of the word. This

exercise of framing sentences gives opportunity for correcting wrong notions of the shades of meaning of the word which the pupils may have, and, therefore, is the most important part of the lesson. At the close of each month the pupils are graded in the work, and the grade appears along with the teachers' estimates of the other branches. Every teacher in the school, except those that report late in the morning and are on duty late in the afternoon, has such a class in the study of words, called "Spelling." The main object of the work is to increase the vocabulary of the pupil and at the same time have him learn to spell the new words at his command.

At the close of the year the pupils then on the spelling-class rolls are classified according to their attainment in this particular work; the best in the array are at the top of the list, the next are next below, and so on down the list, with the incoming eighth-grade pupils at the foot of the list, but arranged in high to low scholarship order on the basis of a test given them in May on a list of words from the Ayres Spelling Scale. The entire number of pupils in this list is divided by the number of teachers in the faculty, and there will be a quotient of some thirty or more pupils to meet each teacher on the first day of the fall semester. The teachers are then assigned to these classes, and each pupil then has a "home room" or attendance room assignment. Of course, these lists that go to each teacher for attendance purposes and this study of words are swollen lists. The attendance the first day at these classes makes correction necessary at once, for some drop out and disappear between June and September. If there were 100 per cent. retention, no corrections would be necessary.

Now with each teacher assigned to his room and each pupil who is in high school or in the eighth grade assigned to a teacher for his first appointment on the opening day, it is necessary for the clerk to prepare a typed list in alphabetical

order of all the pupils who in June are in either high school or in the eighth grade and to set next to each pupil's name the number of room to which he should go on his entering the high-school building on the first day. Several duplicates of

*Obverse Side*

GUIDE CARD

Name: ELSIE JARRARD

8:30 Spelling—216

1. 8:45 English I—218
2. 9:30 Physical Training—Girls' Gym.
3. 10:15 General Science—307
4. 11:00 Civics—109
5. 11:45 Lunch
6. 12:30 Latin—121
7. 2:00
8. 2:45
9. 3:30
10. 4:15
11. 5:00

*Reverse Side*

INFORMATION FOR PUPILS

1. Rooms numbered 100 to 200 are on first floor; 200 to 300 are on second floor; 300 to 400 on third floor.
2. When the bell rings at 8:25, go at once to your Spelling or Attendance Room.
3. When you should come too late (after 8:40 A.M.) for spelling, take the written note from home explaining your lateness and signed by parent or guardian at once to the office and there exchange it for an admittance slip.
4. When in the halls you should be walking briskly. Do not loiter.
5. Spend your free periods in the Study Room.
6. When you are through with your appointments, you are free to go home.
7. When you leave the grounds, you are on your way home.

this list are typed in order that they may be posted in the halls for the direction of the pupils on the opening day.

During the summer vacation the clerk also prepared guide cards for the eighth-grade pupils (p. 728). These are copies of their registration cards plus some information those new to the school need.

These cards are, when completed, grouped together with the guide cards of the upper-class pupils so that each teacher will thus have cards corresponding to the roll of his class for spelling. With these guide cards done and the lists of each of the other classes for the teacher typed, and the typed alphabetical lists of all the pupils, together with their spelling-room assignment prepared, the clerk is ready for the opening day of school.

During the three weeks previous to the opening of the high school in the fall a notice is printed in the local papers to the effect that the high-school principal and some of his assistants will be in the high-school building during the three days previous to the opening day to meet pupils who had not registered in June or who desire for good reasons to change their June registration. The new entrants make additions pro rata to the bundle of guide cards each teacher will have, and make necessary also a supplementary or "late list" to the alphabetical lists of pupils with their spelling or attendance-room assignments. Changes in registration affect only the guide cards and class lists already made out. These changes do not affect the assignment to the spelling classes.

At the teachers' meeting the day before the school opens the teachers are given the following direction sheet.

Teachers were informed that the first day was like all other days and that thorough and careful teaching should be done on that day as on all other days.

On the morning of the first day, when the pupils entered the building, they found notices posted in all the halls directing

## INSTRUCTIONS FOR THE FIRST DAY

1. Obtain the Guide Cards for the pupils of your Spelling class from the clerk.
2. Be in your room at 8:00 A.M.
3. Be ready to act as adviser and to register any pupil sent to you either previous to 8:30, the Spelling period, or during any of your free periods. Pupils coming to the school for the first time and not previously registered will be assigned pro rata to the teachers for registration. As soon as a new pupil is registered conduct him to the clerk for his room assignments. Leave his registration card in the office.
4. At 8:30, the Spelling period.
  - (1) Obtain name and address of each pupil in your room. Bring these to the office as soon as possible.
  - (2) Correct your Spelling list.
  - (3) Give out Guide Cards.
  - (4) Fill out Attendance blank (sample given below) and place in clip at the door. The clip is on the door casing in the hall.
  - (5) Call pupils' attention to information on reverse side of guide cards. Give any explanations that seem necessary.
5. Obtain name and address of pupils in each of your classes. File a copy of these rolls in the office before the close of the day. Be sure you give your name to your classes, so the pupils will know who their teacher is in each subject. All class periods will be held the full time.
6. Teachers' meeting at 3:30 P.M. Bring the class rolls the clerk made out for you and the new rolls of today to the meeting.

them to find their names on the alphabetical lists in the halls and at the 8:25 bell to go to the rooms the numbers of which were placed opposite their names. The pupils thus go to their spelling rooms, receive their guide cards, and at the close of the spelling period pass at once to their next recitation. If they cannot find their names in the alphabetical lists posted in the halls, they are evidently pupils who were not in the eighth grade in May last, and are directed to go to the office. There their names and addresses are taken, they are assigned to some teacher as an adviser, and then they are sent to their adviser's room to be registered for their classes.

## COMPULSORY EDUCATION IN THE AMERICAN COLONIES<sup>1</sup>

MARCUS W. JERNEGAN  
University of Chicago

### I. NEW ENGLAND

The history of compulsory education in America is of great interest, because fundamentally such a system is the surest foundation for the ultimate success of that great experiment in democracy to which we are dedicated. As the working out of the principle of democracy has been one of the greatest single forces in American history, so now it is perhaps the most important issue at stake in the present world-conflict, and its complete triumph the surest guaranty of permanent peace.

The development and extension of the principle of compulsory education as a foundation for democracy are justified because democracy depends on public opinion; and it is only through an enlightened public opinion that a government by democracy can succeed. For the more universally the people are educated, the less need there is of restraint and the greater is the check against corruption and unjust or unwise legislation by the people's representatives.

The original idea underlying the establishment of our state systems of public instruction was the responsibility and duty of the states to make education available and free to all children at public expense. The notion that it was also the duty of the states to compel all children to acquire a minimum of education

<sup>1</sup> This article, to be followed by others, is a chapter from the author's forthcoming *History of Education in the American Colonies*. For a discussion of the factors influencing educational development in New England, and the efforts of individual towns to set up schools before 1647, see two articles by the author in the *School Review* for May and June, 1915.

was of slower growth, and it is only in comparatively recent times that all the states have passed laws embodying this principle.

Compulsory education must be distinguished from compulsory schools. Obviously either could exist independently of the other, and such was the case for long periods in some of the colonies and states. We should also distinguish between two forms or agencies of compulsory education. As now thought of, it is nearly synonymous with compulsory attendance of all children, between certain ages, for a definite time, at organized institutions of learning usually called schools<sup>1</sup>. But the first important legislation involving this principle did not mention schools as the agency, but rather parents, or the "master" or "governor" of a family, or a "guardian." The word "master" was usually applied to one who held a child as an apprentice or servant and who, from the standpoint of the law, was considered as acting in the place of a parent. Hence every parent and master was looked upon as an agency for securing the compulsory education of all children. Later legislation recognized "others"—for example, a tutor—as a proper agency, and still later we have the phrase "schoolmaster, or other helps and means," thus including organized institutions of learning.

Compulsory education is now principally associated with the idea of secular book education. In its earliest development, however, the emphasis was distributed and included vocational and religious instruction, or perhaps omitted book education entirely. The inherited notions of the colonists would have limited their legislation almost entirely to compulsory vocational education for certain classes of children, following the practice of England, and the two great acts of 1562 and 1601—the Statute of Artificers and the Poor Law,

<sup>1</sup> A table showing the dates when various states and territories passed laws involving compulsory attendance may be found in *Report of the Commissioner of Education, 1888-89*, Vol. I, p. 471. The earliest date given is that of Massachusetts, 1852.



respectively<sup>1</sup>. But, as in many other cases the colonists modified an English institution to fit their peculiar needs or environment, and thus developed a peculiarly American institution.

Another important difference connected with the early development of compulsory education is the fact that the cost as well as the actual responsibility, was placed chiefly on the parent or master rather than on the state or the people of any local unit, perhaps involving general taxation of the property of every individual, according to the present system. Some modification of this theory was made in practice, but on the whole the cost fell on the parent or master.

Any system of compulsory education, to be effective, must be based on general mandatory laws passed by the central governing body of the state, with adequate provisions for their enforcement. This includes either specific mention of the officers and courts responsible for enforcement and penalties for neglect, or it is implied in the law that such machinery exists and will be used. It is obvious that we can not consider acts of a permissive or advisory character as compulsory. Even laws which use the word "shall" rather than "may" must often be classed as permissive acts when the responsibility for enforcement or the penalty for neglect is so vague or uncertain that the law may become a dead letter. The educational legislation of the states, like other types of legislation, includes many such examples.

It is the purpose of the first two articles of this series to trace the legislation of the New England colonies on this important subject. Another will treat of the enforcement of the legislation. It is believed that a clearer view of the

<sup>1</sup> *The Statutes of the Realm* (London), 1819, Vol. IV., pp. 414, 962, for 5 Eliz. c. 4, and 43 Eliz. c. 2. For the apprenticeship system in England and the relationship of English laws to the Massachusetts act of 1642, see O. J. Dunlop and R. D. Denman, *English Apprenticeship and Child Labour* (London, 1912); J. F. Scott, *Historical Essays on Apprenticeship and Vocational Education* (Ann Arbor, 1914); R. F. Seybolt, *Apprenticeship and Apprenticeship Education in Colonial New England and New York* (New York, 1917).

evolution of our system of public education may be obtained in this way than by attempting to treat both together. There is another reason for this plan. The colonial laws are difficult sources to use accurately. This is due to the fact that laws appear in a variety of forms, and the utmost care is needed to determine the course of legislation as well as the law in force at a particular time. Committees appointed by the various assemblies from time to time for the revision of the laws were given the power, not only to include the laws in force, but to repeal, amend, and even make new laws. When their work was finished, the assembly adopted it as a whole, so that legislation, which can be found nowhere else appears in the codes; for example, in the so-called "colonial records" of the assembly, or in the session laws or the journals of either house. The one attempt to bring together the important educational legislation of the colonies, viz., Clew's *Educational Legislation and Administration of the Colonial Governments, 1899*, a Columbia University thesis, omits important educational acts because of a failure to examine the codes with care<sup>1</sup>. Moreover, it is only by the examination of the codes that we can certainly determine how long a law remained in force. It is due principally to the failure to examine carefully the codes of the colonies that the history of our early educational legislation is nowhere adequately set forth<sup>2</sup>.

<sup>1</sup> The difficulty is made greater because of the fact that no library in America has a complete set of all the codes issued by each of the colonies. An examination of the book mentioned reveals the fact that much important educational legislation found in the codes is omitted. There is no account, for example, of the educational legislation of Plymouth Colony. It may be noted that the laws of 1648, 1655, and 1671, given below in note 1, p. 740, note 3, p. 745, and note 2, p. 748, appear *only* in the codes published respectively by Massachusetts in 1648, New Haven in 1656, and Plymouth in 1672. Moreover, the same is true of the Connecticut law of 1650 and 1672, and that of Massachusetts of 1658, published, respectively, Connecticut in 1822 and 1673, and Massachusetts in 1660. In other words, in no case is the above legislation to be found in the "colonial records" of these colonies, or in their session laws published separately. In every case both the original and amended law was the work of a committee appointed to prepare the code, and their work was ratified as a whole.

<sup>2</sup> Compare, for example, the article by J. W. Perrin on "*Beginnings of Compulsory Education*" in *Educational Review*, March, 1903. This article is full of errors, and hopelessly confuses compulsory education, attendance, and schools.

Turning now to the early educational legislation of the New England colonies, we observe that certain underlying forces helped to determine the character of this legislation. We may note first a conflict of forces: those leading to centralization of power in the state, and those emphasizing the power of the local unit, such as the town or county, and later the district. Because of the fact that the states have imposed requirements on the local units and their officers and taken from them certain powers, efficient school systems have been made possible. A general compulsory law operates over a wide area and makes for uniformity, for more equal and progressive development. Permissive acts which allow each local unit to do as it pleases make general progress haphazard. There is lack of uniformity, which may result even in retrogression. It is the New England colonies that furnish us with the first examples of the former tendency.

The educational legislation of these colonies shows that the various assemblies sought two main ends, namely, compulsory education and compulsory schools. The first contemplated a minimum of education for all children, to be given by parents, masters, or someone employed by them for this purpose. The Massachusetts act of June 14, 1642<sup>1</sup>, was the first general

<sup>1</sup> *Records of Colony of Massachusetts Bay*, II, 8-9: "This Court, taking into consideration the great neglect in many parents and masters in training up their children in learning, and labor, and other employments which may bee profitable to the common wealth, do hear-upon order and decree, that in every towne the chosen men appointed for managing the prudenciall affaires of the same shall hencefourth stand charged with the care of the redresse of this evill, so as they shalbee liable to bee punished or fined for the neglect thereof, upon any presentment of the grand jurors, or other information or complaint in any plantations in this jurisdiction; and for this end they, or the greater part of them, shall have power to take accompt from time to time of their parents and masters, and of their children, concerning their calling and impliment of their children, especiallity of their ability to read and understand the principles of religion and the capital lawes of the country, and to impose fines upon all those who refuse to render such accompt to them when required; and they shall have power (with consent of any Court or magistrates) to put fourth apprentice the children of such as shall not be able and fitt to employ and bring them up, nor shall take course to dispose of them, of such as they shall find not to bee able and fit to imply and bring them up, nor shall take course to dispose of them themselves; and they are to take care that such as are set to keep cattle bee set to some other impliment withall, as spinning up on the rock, knitting, weveing tape, etc.; and that boyes and girles bee not suffered to converse together, so as may occasion any wanton, dishonest, or imodest behavior; and for their better performance of this trust comitted to them, they may divide the towne amongst

educational act of this character passed by any of the colonies. Briefly, it declared that there had been great neglect by many parents and masters in training their children in learning and labor and other employments which might be profitable to the commonwealth; and that therefore the chosen men (selectmen) of every town should redress the evil or suffer a fine for neglect thereof, upon presentment by the grand jury or on other information or complaint<sup>1</sup>. To this end they were given power to take account of parents and masters concerning the calling and employment of their children, especially of their ability to read and understand the principles of religion and the capital laws of the country; to impose fines on all those refusing to render such account when required; to "put forth" as apprentices, with the consent of any court or magistrate, the children of parents not "able and fitt to employ and bring then up"<sup>2</sup>.

It is clear that there were two principal motives for the passage of this act, one economic and the other educational. There was first the desire to have all children trained in some definite calling or trade—"employments which may bee profitable to the common wealth." There was hope that skilled labor would, as stated in the English Statute of Artificers,

them, appointing to every of the said townsmen a certeine number of families to have special oversight of; they are also to provide that a sufficient quantity of materials, as hempe, flaxe, etc. may bee raised in their severall townes, and tooles and implements provided for working out the same; and for their assistance in this so needfull and beneficiall impliment, if they meete with any difficulty or opposition which they cannot well master by their owne power, they may have recourse to some of the magistrates, who shall take such course for their help and incuragment as the occasion shall require, according to justice; and the said townsmen, at the next Court in those limits, after the end of their yeare, shall give a breife account in writing of their proceedings hearin; provided, that they have bene so required by some Court or magistrate a month at least before; and this order to continue for two yeares, and till the Court shall take further order." (The seventeenth century abbreviations and contractions have been expanded in this text, otherwise it is reproduced exactly).

<sup>1</sup> This law is given twice in the records, pp. 6-7 and pp. 8-9. In the first version the words following "complaint" are "in any Court within this jurisdiction"; in the second version the reading is, "in any plantations in this jurisdiction."

<sup>2</sup> These phrases appear to cover three points: first, bringing a child up to work at some employment or trade; second, maintaining him, so that he would not become a charge on the town; and third, seeing that he was taught to read.

1562, help "banishe Idlenes, advance Husbandrye and yeele unto the hired person bothe in the tyme of scarsitee and in the tyme of plentye a convenient proporcon of Wages"<sup>1</sup>. Again, there was the notion of checking pauperism. Unskilled labor not only was not so profitable to the state, but it was often a direct expense, because it led to unemployment, idleness, and and poverty. Even taking care of cattle was not in itself an occupation, and selectmen were ordered to "take care that such as are set to keep cattle bee set to some other impliment withall, as spinning up on the rock, kniting, weveing tape, etc." The fear of the growth of a poor class was justified, considering the experience of England in the previous century, and the power granted to the selectmen to bind out children as apprentices was partly for the purpose of reducing pauperism. The fact that the selectmen were parties to the contract, that the phrase "not able and fitt to employ and bring them up" suggests poverty, and finally that indentures often fail to specify a trade, merely stating that the master shall "keep" or "maintain" or "shall have," or that the child "shall dwell" with him—all this shows that the motive was in part poor relief; that is, that apprenticeship relieved the town of expenses incident to the care of the poor, for which the town was by law responsible<sup>2</sup>.

The second motive was educational; that is, the requirement which made every parent and master a school teacher, and the stipulation that every child must be able to read. This duty was based first on religious grounds, that the child might understand the principles of religion, and secondly on the

<sup>1</sup> 5 Eliz. c. 4; see note 3 above.

<sup>2</sup> The first act on apprenticeship passed by the Colony of New Plymouth was dated December 7, 1641. It declared that "those that have releefe from the Townes and have children and doe not ymploy them. That then it shallbe lawfull for the Towneship to take order that those children shallbe put to worke in fitting ymployment according to their strength and abilities, or placed out by the Townes" (*Recd. Col. New Plymouth*, Vol. XI, p. 38).

Compare also the Virginia act of 1646, "profitable trades," "avoyd sloath and idlenesse" "reliefe of such parents whose poverty extends not to give them good breeding" (Hening, *The Statutes at Large*, etc.; (Virginia), Vol. I, pp. 336-37).

grounds of good citizenship which demands, according to the law, a knowledge of the capital laws. The desire to have all children read was not unique, but the provision for making this degree of education compulsory was so<sup>1</sup>. The use of apprenticeship as a means of book education was not unknown, even in England, since indentures have survived that contain an educational clause<sup>2</sup>. But the evident intention to provide for the universal education of all children, and the plan to use the system of apprenticeship as a principal means for compulsory education of poor children, with penalties specified for neglect, were here introduced by act of an assembly for the first time. It is evident then that we have here one of those cases where an essentially new institution was created, and it is this fact which makes the act of 1642 so important and the glory of Massachusetts so secure, as the first organized state in history to enact such a law.

The details of this act are of very great interest because of the variety of educational principles it involves and the inference we may draw from it with respect to the state of education in Massachusetts at this date<sup>3</sup>. We may note first

<sup>1</sup> The views of Luther, Calvin, and Knox are well known on this subject. In no case, however, do these men assert that every child must be taught to read, under a *penalty* to be imposed on the parent or the officer responsible.

<sup>2</sup> *Records of the Borough of Leicester*, Edited by Mary Bateson, Vol. III, p. 197. (Feb. 8, 1584). "A glover, for 20s., agrees to take an orphan boy and keep him as his own child, without further cost to the town, till he is of years of discretion and then take him as an apprentice, or keep him at school as well as if he were his own child, if he will take learning." Thomas Lechford, a lawyer at Boston, records in his notebook the substance of an indenture of date 1639 to this effect: "Dermond Mathew did bind Teg Mathew his sonne a child of 9 yeares old apprentice to the Said George Strange for ten yeares from the said 9th day of May (1639) with Covenant to keepe him two yeares at School." (*Transactions of the American Antiquarian Society*, Vol. VII, p. 251). See also a case in New Haven, February 25, 1639. Charles Higginson apprenticed to Thomas Fugill "and to keep him att schoole one yeare, or else to advantage him as much in his educatiō as a yeares learning comes to" (Hoadly [Editor], *Rec. of Col. and Jurisdiction of New Haven*, Vol. I, p. 30).

<sup>3</sup> "As every new law is made to remove some inconvenience the state was subject to before the making of it, and for which no other method of redress was effectual, the law itself is a standing, and the most authentic, evidence we can require of the state of things previous to it." (Priestly, *Lectures on History*, 3d Edition, 1791, p. 67). Notwithstanding a prevailing notion that town schools were established by nearly all the towns of Massachusetts almost immediately, such was not the case. We have no evidence that more than seven towns, out of the twenty-one founded up to June 14, 1642, had taken any official action on schools. Massachusetts at this date had a population of about nine thousand or more. See the *School Review*, May and June, 1915, the articles on "The Beginnings of Public Education in New England," by the writer.

that the agency for educating the child is the parent or master. No mention is made of schools or schoolmasters. At least five different parties are concerned in its enforcement: selectmen, grand jurors, magistrates, courts, parents and masters. Besides, "any court" might give its consent to an apprenticeship, and any person might make complaint, presumably to a court or any one of the officials named. This multiplication of officials to enforce a law is characteristic of the Puritan scheme of government and shows a desire to make the law really compulsory. The principle of penalizing the parents or masters for refusal to report concerning the education of their children, and what amounted to a severe penalty for failure to "bring them up" properly, viz., the removal of the child by apprenticing him or her, as well as the provision for a fine on the selectmen for neglect of duty—this whole system of penalties was unique. It does not appear that any legislative body had ever before passed such educational legislation<sup>1</sup>. The content of the education to be given is specified. It included secular and religious features, and in certain cases provided for vocational training, and, besides, mention was made that care should be taken against boys and girls conversing together "so as may occasion wanton, dishonest, or immodest behavior."

The great significance of the act, in comparison with the attitude of states before this time, is, of course, the recognition of the responsibility of the state for the education of all children within its boundaries. In general, we may say that previous to this date most states considered that either the church, a religious denomination or society, or private agencies were responsible for education. True, states were often willing to encourage, and often gave direct support to,

<sup>1</sup> It may be noted that the Virginia Company agreed on February 2, 1620, that the one hundred children supplied by the city of London to be sent to Virginia should be "educated and brought upp in some good Craftes, Trades, or Husbandry" so that they might gain their livelihood by the time they were twenty-one years old, or by the time they had served their seven years' apprenticeship (Kingsbury, *Rec. of Va. Co.*, Vol. I, p. 306). Whether this includes book education is doubtful.



or assisted in the management of, education. On the whole, however, responsibility for education rested with other agencies than the state. We may note also that the minimum standard set for the kind and amount of education was based on the needs of the state and church, and that the state made itself responsible for enforcement and instructed local bodies and officials to carry out its will.

The act of 1642 was to continue two years "and till the Court shall take further order." A failure to appreciate this clause has resulted in errors and omissions in the principal accounts of the compulsory educational legislation of the Massachusetts Bay Colony. This is due to a number of causes, some of them already mentioned. We may note especially that, up to a recent date, a copy of the code of laws enacted by the General Court of Massachusetts in 1648 was not known to be in existence, and since its discovery no one, to the writer's knowledge, has made known the fact that it contains an important revision of the act of 1642, which act was thereby repealed<sup>1</sup>.

<sup>1</sup> After long search by collectors of Americana, this book was found in a small private library in England. It was purchased for a large sum and is now owned by Mr. C. P. Huntington of California, the only copy known to be in existence. For a description see the *New York Nation* of July 5, 1906. The author has used a copy in the possession of the law library of Harvard University, but has had no opportunity of consulting the original printed copy for verification. In the reprint of the code of 1660, in the introduction by Mr. Whitmore, there will be found the history of the legislation leading up to the preparation of the code of 1648. The important point to note is the fact that the amendments, changes, etc., made in the act of 1642 were the work of the committee which prepared the code and that it was ratified by the General Court as a whole. This accounts for the absence of this new law in the *Records of the Company of Massachusetts Bay*. Under the title "children" there occurs the law in question. As the law has never been printed to the author's knowledge, except in the original edition of 1648, it is given entire.

The title page of the code reads: "Book of the General Lawes and Libertyes concerning the inhabitants of the Massachusetts collected out of the Records of the General Court for the severall years wherein they were made and established. Cambridge, Printed according to order of the General Court, 1648. And are to be sold at the shop of Hezekiah Usher in Boston."

#### "CHILDREN

"Forasmuch as the good education of children is of singular behoof and benefit to any Common-wealth; and whereas many parents & masters are too indulgent and negligent of their duty in that kinde. It is therefore ordered that the Select men of everie town, in the severall precincts and quarters where they dwell, shall have a vigilant eye over their brethren & neighbours, to see, first that none of them shall suffer so much barbarism in any of their families as not to indeavour to teach by themselves or others, their children & apprentices



It will be observed that the law of 1648 differs very materially from that of 1642 with respect to both additions and omissions. We may note first that it is much more specific and makes compulsory book and religious education more certain for apprentices as well as children. Children and apprentices were to be taught to read, etc. Children and servants were to be catechized in the principles of religion. Children and apprentices were to learn a catechism and answer questions propounded. Selectmen could take children and apprentices from masters of families for failure to teach them to read and bring them up properly, and could then place them with other masters who would treat them "according to the rules of this order"<sup>1</sup>. There is an enlargement of the educational qualification from mere ability to read to "perfectly to read the english tongue," and the penalty laid upon the selectmen for neglect of duty was made specific; that is, twenty shillings "for each neglect therein." Besides, learning is a "higher" employment, and husbandry is mentioned as an employment. Selectmen are given inspection

so much learning as may inable them perfectly to read the english tongue, & knowledge of the Capital lawes; upō penaltie of twentie shillings for each neglect therin. Also that all masters of families doe once a week (at the least) catechize their children and servants in the grounds & principles of Religion, & if any be unable to doe so much: that then at the least they procure such children or apprentices to learn some short orthodox catechism without book, that they may be able to answer unto the questions that shall be propounded to them out of such catechism by their parents or masters or any of the Select men when they shall call them to a tryall of what they have learned in this kinde. And further that all parents and masters do breed & bring up their children & apprentices in some honest lawfull calling, labour or employmēt, either in husbandry, or some other trade profitable for themselves, and the Common-wealth if they will not or can not train them up in learning to fit them for higher employments. And if any of the Select men after admonitiō by them given to such masters of families shal finde them still negligent of their dutie in the particulars aforementioned, wherby children and servants become rude, stubborn & unruly; the said Select men with the help of two Magistrates, or the next County court for that Shire, shall take such children or apprentices from them & place them with some masters for years (boyes till they come to twenty one, and girls eighteen years of age compleat) which will more strictly look into and force them to submit unto government according to the rules of this order, if by fair means and former instructions they will not be drawn unto it. [1642]."

The date 1642 indicates the time of the passage of the original law, of which this was a revision.

<sup>1</sup> The power of the selectmen, it will be noted, was limited, as the help of the magistrates or "the next County Court" was specified. This accounts for the fact that some indentures appear in the town and others in the county court records.

powers and may "admonish" parents for neglect. The phrase "teach by themselves or others" recognizes the teachers appointed in towns of fifty families and up by the act of 1647, and also private teachers. On the other hand, the selectmen are deprived of power to fine parents for refusal to make reports, the industrial features are less complete, and the machinery for enforcement is less specific. The clause concerning the dividing of the town for inspection purposes and that calling for a written report of the proceedings of the selectmen are both omitted.

Effective compulsory education depends in part on compulsory support of education by the people in their corporate rather than their individual capacity. The provision which compelled masters to teach apprentices to read and that making the selectmen subject to a penalty of twenty shillings for neglect of duty in this respect practically compelled the selectmen to see that indentures contained an educational clause when they bound out children as apprentices, unless the child already knew how to read. But the supply of children to be apprenticed might exceed the demand. Ordinarily the selectmen would naturally endeavor to have a master take a child as apprentice without expense to the town. But if no one could be found to do this, it was necessary to offer inducements. This usually took the form of a fixed sum of money which the selectmen promised to pay a master as a bonus for taking a child as an apprentice. Such sums had to be taken from the town treasury; that is money raised by general taxation. An indenture, then, which contained a clause requiring the master to teach the apprentice to read, and which also involved money paid by the town to the master, may be thought of as providing for partial compulsory town support of education by general taxation. It is perhaps possible to draw this conclusion from the act of 1642, though there is some doubt whether an apprentice under this act was on exactly

the same basis as a child not apprenticed, with respect to book education<sup>1</sup>. However, the law of 1648 removed this ambiguity and, because of possible payments out of the town treasury to a master, made the compulsory education of apprentices more certain, and helped establish the principle of partial support of education by the town through the agency of general taxation.

The law of 1648 remained in force until the next revision of the laws, which was made in 1658 and published as the code of 1660<sup>2</sup>. The new law on education is entitled "Children and Youth," and is, with a few minor changes, a copy of the law of 1648<sup>3</sup>. Because of neglect of this law, an enforcing act was passed in 1668<sup>4</sup>. Clerks of the county courts were directed to send an order to the constables of the towns in their county to execute it. This was to the effect that the General Court would require the selectmen to enforce the law, "the prevalency of the former neglect notwithstanding." Constables were ordered to take a list of the names of "those young persons" in towns and adjacent farms who "do not serve their Parents

<sup>1</sup> This is due to the omission of the word "apprentice" in connection with the word "children." It is not clear from the wording of the act of 1642 that selectmen could take an apprentice from a master for failure to teach him to read, unless such a clause had been inserted in the indenture. But there was no law compelling selectmen to include such a clause in the indenture. On the other hand, it seems to have been the intention of the framers of the act to have apprentices taught to read and to have the selectmen fined for neglect of duty in this respect. If this is a correct interpretation, then the word "children" must be interpreted to include apprentices. Considering the English practice of not paying attention to book education of apprentices, it would have been natural for the framers of the act of 1642 to stress the industrial efficiency of the apprentice and the provision for his maintenance rather than book education. It is evident that there was doubt on this question, for the revision of the law in 1648 was very specific on this point.

<sup>2</sup> *The Book of the General Lawes and Libertyes*, etc. (Cambridge, 1660), p. 16. This code was published in facsimile, edited by W. H. Whitmore, Boston, 1889. There were several supplements to this code, probably printed in 1650, 1654, and 1657, including the laws passed within these dates, but no copies have survived. Some of these supplements were in the nature of a new code, as laws passed previous to 1648 were included which are not in the code of 1648 (*ibid.*, Introduction, pp. 112-13). The heading of the first page of the text of the code of 1660 reads: "*The General Lawes of the Massachusetts Colony, Revised and Published by Order of the General Court in October, 1658.*"

<sup>3</sup> There are, however, five additional sections bearing on the general training of children and their care. They have to do with disobedient children, entertaining children and apprentices in taverns, debts, unnatural severity of parents, and orphans.

<sup>4</sup> Session of General Court, meeting October 14, 1668 (*Rec. of Co. Mass. Bay*, Vol. IV<sup>a</sup>, pp. 395-96); Code of 1660 supplement, pp. 17-18; this is a reprint of the session law.

or Masters, as Children, Apprentices, hired Servants or Journey men ought to do," and return the same to the next court, viz., county court. If then the return showed that selectmen had been negligent in their duties—namely, in seeing that all children and youths under family government were taught to "reade perfectly the English Tongue"; that they had knowledge of the capital laws; that they were taught some orthodox catechism and brought up to some honest employment; that "Family Governours," after admonition and neglect of the provisions of the law, had their children and apprentices taken from them and apprenticed to others—then the court was to proceed against them by "Admonition, or fine, as the merit of the case may require." This enforcing act appears in the code of 1672, as well as that entitled "Children and Youth," without essential change<sup>1</sup>.

The Colony of Connecticut copied, in her code of 1650<sup>2</sup>, almost verbatim, the Massachusetts law of 1648 regarding children, so that it is not necessary to comment further on this act. The important point to note is the fact that Massachusetts, *not* Connecticut, as has often been asserted, was responsible for the numerous changes in the law of 1642. This is one of the early examples of the manner in which our public-school system has evolved and approached something like uniformity, in spite of the fact that the colonies, and later the states, have always been entirely independent in establishing their educational systems. Connecticut found that the Massachusetts law of 1648, revised from that of 1642, fitted her needs, and thus considered that there was no need of spending time and effort in drafting a new law. She also adopted the compulsory school act of 1647 entire, as given with minor changes in the

<sup>1</sup> *The General Laws and Liberties of the Massachusetts Colony; Revised and Reprinted, etc.* (Cambridge, 1672), pp. 149-50 and 26-28. Reprinted, Boston, 1887; edited by W. H. Whitmore.

<sup>2</sup> Trumbull, editor, *Public Rec. of Col. of Conn. to 1665*, pp. 520-21. The only essential change is the omission of the words "or the next County Court for that shire." Connecticut was not divided into counties at this date. This code was not published until 1822.

code of 1648, besides taking much other legislation from this same code.

The New Haven Colony was entirely independent of Connecticut from its foundation in 1638 to 1665, when it was formally united with Connecticut under the charter of 1662<sup>1</sup>. Though a small colony consisting of only a few towns<sup>2</sup>, it passed important educational legislation. The law regarding compulsory education appears in the code of 1655<sup>3</sup>, and was

<sup>1</sup> The charter was dated April 23, 1662, but New Haven was not represented by deputies in the new assembly until March, 1665, and the laws of New Haven were not actually laid aside until August 14, 1665 (*Rec. Col. and Jurisdiction of New Haven, 1653-1665*, p. 557).

<sup>2</sup> New Haven, Milford, Stamford, Greenwich, Guilford, Branford, and Southold, the latter on Long Island, were subject to the New Haven Colony for longer or shorter periods.

<sup>3</sup> *New Haven's Settling in New England and Some Lawes for Government: Published for the Use of that Colony*, etc. (London, 1656). Reprinted by Hoadly in *Rec. of Col. and Jurisdiction of New Haven, 1653-1665*, pp. 583-84.

#### "CHILDRENS EDUCATION

"Whereas too many Parents and Masters, either through an over tender respect to their own occasions, and businesse, or not duly considering the good of their Children, and Apprentices, have too much neglected duty in their Education, while they are young and capable of learning, It is Ordered, That the Deputies for the particular Court, in each Plantation within this Jurisdiction for the time being; or where there are no such Deputies the Constable, or other Officer, or Officers in publick trust, shall from time to time, have a vigilant eye over their brethren, and neighbours, within the limits of the said Plantation that all parents and Masters, doe duly endeavour, either by their own ability and labour, or by improving such Schoolmaster, or other helps and means, as the Plantation doth afford or the family may conveniently provide, that all their Children, and Apprentices as they grow capable, may through Gods blessing, attain at least so much, as to be able duly to read the Scriptures, and other good and profitable printed Books in the English tongue, being their native language, and in some competent measure, to understand the main grounds and principles of Christian Religion necessary to salvation. And to give a due Answer to such plain and ordinary Questions, as may by the said Deputies, Officers, or others, be propounded concerning the same. And where such Deputies or Officers, whether by information or examination, shall find any Parent or Master, one or more negligent, he or they shall first give warning, and if thereupon due reformation follow, if the said Parents or Masters shall thenceforth seriously and constantly apply themselves to their duty in manner before expressed, the former neglect may be passed by; but if not, then the said Deputies, or other Officer or Officers, shall three months after such warning, present each such negligent person, or persons, to the next Plantation Court, where every such Delinquent upon proof, shall be fined ten shillings to the Plantation, to be levied as other fines. And if in any Plantation, there be no such Court kept for the present, in such case, the Constable or other Officer, or Officers, warning such person or persons, before the Free-men, or so many of them as upon notice shall meet together, and proving the neglect after warning, shall have power to levy the fine as aforesaid: But if in three months after that there be no due care taken and continued for the Education of such Children or Apprentices as aforesaid, the Delinquent (without any further private warning) shall be proceeded against as before, but the fine doubled. And lastly, if after the said warning, and fines paid or levied, the said Deputies, Officer or Officers, shall still find a continuance of the former negligence, if it be not obstinacy, so that such Children or Servants may be in danger to grow barbarous, rude and stubborn, through ignorance, they shall give due and seasonable notice, that every such Parent and Master be summoned to the next Court of Magistrates, who are to proceed as they find cause, either to a greater fine, taking security for

evidently based in part on the Massachusetts acts of 1642 and 1648, but includes some entirely new principles. Briefly, it declares that too many parents and masters had too much neglected their duty in the education of their children and apprentices, "either through an over tender respect to their own occasions and businesse, or not duly considering the good of their Children and Apprentices"; therefore deputies for the particular court in each plantation, or the constable or other officers in public trust, where there was no deputy, were to see that parents and masters, either by their own ability, or "by improving such Schoolmaster, or other helps and means, as the Plantation" offered, taught all their children and apprentices "at least so much, as to be able duly to read the Scriptures, and other good and profitable books in the English tongue." and to understand the main principles of the Christian religion, so that on the asking of questions concerning the same by the above officers "due answer" might be given. An elaborate system was provided for the enforcement of the act. When by information or examination such officers found that any parent or master, one or more, was negligent, warning was to be given, and if reformation followed, the neglect could be passed by. But if there was still neglect, then three months later the officers must present the negligent person or persons to the next plantation court where on proof the delinquent "shall be fined ten shillings to the Plantation, to be levied as other fines." If after three months there was still neglect, the delinquent must be proceeded against as before and the fine doubled. Finally, if after three months more there was still neglect, after warning and the fines were paid and levied, and the officers believed that children or servants might grow "barbarous, rude, and stubborn, through ignorance," they due conformity to the scope and intent of this Law, or may take such Children or Apprentices from such Parents or Masters, and place them for years, Boyes till they come to the age of one and twenty, and Girles till they come to the age of eighteen years, with such others, who shall better educate and govern them, both for publick conveniency, and for the particular good of the said children or Apprentices."

could summon the parent or master to the court of magistrates, who could either increase the fine, "taking security for due conformity," or "take such Children or Apprentices from such Parents and Masters" and place them with other masters, boys to twenty-one and girls to eighteen years of age, who "shall better educate and govern them."

This act has better machinery for locating negligence on the part of the parent, and the penalties are more severe for continued neglect than those of Massachusetts and Connecticut. Even the Court of Magistrates might take a hand in compelling some erring parent to see to the education of his child. For the first time in the colonies, and apparently in any community, a money penalty was placed directly on the parent or master, after the first warning, for failure to educate a child or apprentice, and this was levied and made and collected as other fines. The education demanded was broader than that in Massachusetts and Connecticut, and the emphasis was placed on mental development. There is no special mention of trades. We may note also that the principal officer responsible for enforcement was the deputy, a colony or state rather than a local official like the selectmen or grand-jurymen. The principal weakness of the law is the failure to penalize the officials responsible for enforcement if they neglected their duty. An important amendment to this law was made May 30, 1660<sup>2</sup>, when for the first time a colonial assembly, or indeed any government, provided that "the sonnes of all the inhabitants within this jurisdiction, shall (under the same penalty) be learned to write a ledgible hand, so soone as they are capable of it." It is evident that the New Haven Colony had, in theory at least, developed the most comprehensive system of compulsory education of any New England colony up to 1660 and should therefore have the credit for such a system. Because overshadowed by Massachusetts

<sup>2</sup>*Rec. of Col. and Jurisdiction of New Haven, 1653-1665*, p. 376.



in size, and in the zeal of the latter's historians, the New Haven Colony has never received proper credit for this remarkable law providing for the education of all boys in both reading and writing and of girls in reading. As Connecticut absorbed the New Haven Colony in 1665, the latter became subject to the former's educational code of 1650<sup>1</sup>.

Plymouth Colony in its revision of the laws in June, 1671<sup>2</sup>, introduced a section entitled "Education of Children." This

<sup>1</sup> A new code was published by Connecticut in 1673. This contained the law of 1650 on the education of children, with minor changes, pp. 13-14. The title was *The Book of the General Laws, for the People within the Jurisdiction of Connecticut*, etc. (Cambridge, 1673). The copy of the laws was "viewed and approved by this Court" October 10, 1672, and ordered printed (*Pub. Rec. of Col. of Conn.*, 1675-1678, p. 182). This revision of the law, has one new section, "Rebellious Children and Servants," with power granted to the Governor and two Assistants to punish on conviction.

<sup>2</sup> *The Compact with the Charter and Laws of the Colony of New Plymouth*, etc., edited by William Brigham (Boston, 1836), pp. 270-271. This contains *The Book of the General Laws of the Inhabitants of the Jurisdiction of New Plymouth*, etc. (Cambridge, 1672).

#### "EDUCATION OF CHILDREN"

"Forasmuch as the good Education of Children and Youth, is of singular use and benefit to any Common-wealth; and whereas many Parents and Masters either through an over respect to their own occasions and business, or not duly considering the good of their Children and Servants, have too much neglected their duty in their Education. whilst they are young and capable of Learning;

"It is Ordered, That the Deputies and Select men of every Town, shall have a vigilant eye from time to time over their Brethren and Neighbours, to see that all Parents and Masters do duly Endeavour, by themselves or others, to teach their children and servants as they grow capable, so much learning as through the blessing of God they may attain, at least to be able duly to read the Scriptures, and other good profitable Books printed in the English Tongue (being their Native Language) and the knowledge of the Capital Laws and in some competent measure to understand the main Grounds and Principles of Christian Religion, necessary to Salvation, by causing them to learn some short Orthodox Catechisme without Book, or otherwise instructing them as they may be able to give a due answer to such plain and ordinary Questions, as may by them or others be propounded to them concerning the same: And further that all Parents and Masters do breed and bring up their children and apprentices in some honest lawful calling, labour or employment, that may be profitable for themselves, or the Country; and if after warning and admonition given by any of the Deputies, or Select-men, unto such Parents or Masters, they shall still remain negligent in their duty, in any the particulars aforementioned, whereby Children or Servants may be in danger to grow Barberous, Rude or Stubborn, and so prove Pests instead of Blessings to the Country; That then a fine of ten shillings shall be levied on the Goods of such negligent Parent or Master, to the Towns use, except extreme poverty call for mitigation of the said fine.

"And if in three months after that, there be no due care taken and continued, for the Education of such children and apprentices as aforesaid, then a fine of twenty shillings to be levied on such Delinquents Goods, to the Towns use, except as aforesaid.

"And Lastly, if in three months after that, there be no due Reformation of the said neglect, then the said Select-men with the help of two Magistrates, shall take such children and servants from them, and place them with some Masters for years, (boyes till they come to twenty-one, and girls eighteen years of age) which will more strictly educate and govern them according to the rules of this Order."



law was based on the Massachusetts act of 1642 and 1648 and the law of New Haven of 1655. Deputies and selectmen were to see that children and servants were taught and catechized, as already set forth in the New Haven act. Parents and masters were to "breed and bring up their children and apprentices" as directed in the Massachusetts act of 1648, except that the clause "or some other trade" is omitted. After warning and admonition was given by deputies or selectmen to negligent parents and masters, then a fine of ten shillings "shall be levied on the Goods of such negligent Parent or Master, to the Towns use, except extreme poverty call for a mitigation of the fine." For three months more of neglect, the fine was doubled, twenty shillings. For three months more of neglect, the selectmen with the aid of two magistrates could take and apprentice such "Children and Servants" and place them with other masters "which will more strictly educate and govern them." The emphasis is on book and religious education as in New Haven, and there is the same weakness—the failure to provide for a penalty to be levied on negligent officers.

New Hampshire, Maine, and Rhode Island<sup>1</sup> failed to pass acts involving compulsory book or religious education during the seventeenth century. But New Hampshire was under the jurisdiction of Massachusetts from 1641 to 1679, hence the laws of the latter colony applied. Maine also was united to Massachusetts in 1652 and continued under her jurisdiction the remainder of the colonial period. It thus appears that by 1671 all of the territory of New England, with the exception of Rhode Island, was under a system of compulsory education.

<sup>1</sup> Rhode Island had one law, passed in 1662, which gave power to towns to "put out to service" those "likely to become a charge" to the town. Overseers of the poor were to inform the town council concerning the poor. The town council was then "to take such course . . . as to them shall seem proper and needful, Agreeable to the Statute of XLIII, of ELIZABETH, Chap. 2d." Thus the apprenticing of poor children was provided for, though not compulsory, and no book or religious education was mentioned. In practice, however, an educational clause might be inserted in the indenture, and, when such was the case, could be enforced. For this act see *The Charter and the Acts and Laws of the Colony of Rhode Island* (Boston, 1719), p. 10. This act was passed at a session of the General Assembly held at Newport March 1, 1662.

## WHAT GIRLS WANT TO KNOW

BENJAMIN C. GRUENBERG

Chairman Department Biology, Julia Richman High School

The New York state physical training law which went into effect in September, 1917, requires, among other things, fifteen minutes of instruction in hygiene per week for all high-school pupils. The earlier laws had already required hygiene instruction for all high-school pupils equal to one hour (period) per week during the first year. The older law has been administered in the New York City high schools through the biology department. The new law raised many administrative difficulties; and it was finally decided to leave to each of the high schools its own solution, with the understanding that at the end of one year a unified plan would be agreed upon.

At the Julia Richman High School hygiene instruction has been offered this year in four types of classes: (1) in connection with biology for the academic students during the first year; (2) on a special hygiene syllabus for most of the commercial students two periods a week for one year; (3) for a few commercial students two periods a week for one term and biology five periods a week for one term; (4) "Hygiene C" to students above the first year, one period a week. A syllabus was prepared under the general caption "Personal Hygiene" and presented to all of the classes from the third term up, with the expectation that differentiated syllabi would later be worked out.

For the purpose (1) of getting some indication as to what value the students attached to this instruction, and (2) of finding out whether the students had any definite interest in the further pursuit of the subject, a special inquiry was made toward the end of the fall term (in January, 1918). The

students in Grades IIA to IIIB (third to sixth high-school terms) in commercial courses at one of our annexes were asked to answer two questions:

1. What topic of those studies this term do you consider most important, and why?
2. What topic not studied this term would you suggest as being of special value?

The two questions were supposed to be answered on separate sheets of paper; the girls were asked to indicate on the papers their sections (grades), but not to write their names. It was hoped that anonymity would insure frankness, and this it no doubt did.

Four hundred and thirty sets of replies were received. A summary of the replies is given on pages 757-8. Table I gives the distribution for the "most important" topics. Table II gives the distribution of "suggested" topics. Table III gives a scattering of suggestions that in many cases bore no obvious relation to the subject in hand, although they are interesting indications of what the students feel would be helpful to their development.

An analysis of these results brings out several significant points.

1. As to the pupils, there is a wide variation from those who do not know any more than they have been told—that is, those whose imagination does not run beyond the details of instruction—and who have therefore nothing to suggest, to those at the other extreme who show evidence, not only of assimilating the instruction, but of carrying it beyond the classroom and applying it in their every day life or in their homes.

"Nothing to suggest"; "Can think of no other topics"; "We have learned all there is"; and blank papers in place of suggestions. On the other hand, we have: "Something about self-control, not merely tell the pupils to control themselves, but teach them *how* to do so"; "We should study about food so as to improve the lunch-counter"; "More people should

understand about constipation in a practical way"; "Much sickness could be prevented if we knew more about how to recognize them."

2. A number of girls found the subject of no importance (these were all third-term girls) because it was not sufficiently different either as to method or as to content from the instruction of the preceding term.

"I knew all of these things before; we should learn something new"; "We should have more new topics and not talk about the same things so much"; "It was not worth much because we did not go into it thoroughly"; "I practically wasted the hygiene period; that is the trouble. You take up hygiene in the first term; in the second term you simply repeat it and in the third term you simply repeat it. Why don't they take up other subjects than teeth, kidneys, etc?"

3. The vividness and detail introduced into the instruction are significant factors in the effectiveness of the work. This is shown by the predominance of "feet" and "skin" among the topics selected as "important." The teacher of these groups of students was able to make these topics more vivid than is usually the case, as she had a great deal of special information on the anatomy of the foot, the construction of shoes, the relation of fallen arches to posture and to health generally, and corns and bunions. In the same way the topic "skin" was vitalized because of its direct association with personal appearance; and this in turn was given a basis for legitimate interest that girls could frankly acknowledge—namely, the importance of good presentation in applying for a business position and dealing with people in business. That the girls had their reasons for being interested in complexion and appearance, there is no room to doubt; but here was given an opportunity to be frankly interested without regard to the native personal and commonly rather disparaged reason.

4. The other topics considered important were justified in terms of direct relation both to personal comfort in health and to effectiveness in business and in dealings with others.

5. About 10 per cent of the pupils (44) had no suggestions whatever to offer; very few of these took the trouble to say, "I have no suggestions"; "I cannot think of anything," etc.

6. Of the 404 who had suggestions to make 85 suggested the need of instruction in matters pertaining to sex. A great many of the 29 listed under "Care of body" undoubtedly had in mind a similar need. This is inferred from the wording of the suggestions: "All about the body"; "About all the organs"; "About the different systems of the body"; "The care of all the organs"; "The hygiene of all the organs," and so on. And it is not unfair to assume that many of the blanks were due to the fact that what was uppermost in their minds could not find ready expression for reasons well understood.

7. The reasons given for the various suggestions point to the urgency with which the girls feel the need for instruction on sex matters. The interest in "eyes," "clothes" (in relation to health and appearance), "food and diet," and so on, are very largely extensions of the justifications given for the topics considered "important"; but the reasons given for the study of "sex hygiene," etc., introduce a new note.

"A girl does not know whom to ask about things she does not know. It is not spoken of freely."

"As well as the boys study something about the girls, the girls would like to know something about the boys."

"Caring for one's self during certain periods. I believe that girls attending high school are able to take care of themselves and keep up their appearance during this period as in others."

"Care of body during menstruation period because I have heard different opinions by people but do not know which are best to follow."

"We are all girls and therefore why not discuss topics that would help the girls greatly, for many are in ignorance on such matters as, say, their menstruation period? I for one would very much like to discuss this question, because I am in doubt as to many questions concerning this topic which I am sure would benefit me."

"As we grow older we are going through many changes, and we would like to know more about ourselves."

"No matter how much one knows of it, there is a great deal more to learn and, besides, it is very necessary."

"We should know more of the human body, and also of our sexual relations."

"It is something that pertains to every girl and there are many questions that girls would like answered pertaining to this topic."

"Menstruation: We are all human beings and we all must know something about ourselves, and since menstruation is an important topic of the female sex I see no reason why we shall not discuss it."

"Because I think school is the best place to learn it and so very few girls know anything about it."

"A girl must know everything pertaining to her and why things happen during her life."

"And every girl should know enough about it to know how to take care of herself."

"There are many girls who do not know how to take care of themselves in cases where a knowledge of sex hygiene would guide them to do the right thing and in the right way."

"Many girls are kept in ignorance and don't know half they ought to know. Precautions, preventives, could be explained in lectures and talks. It has succeeded in other high schools and has made better men and women."

"Many girls could be benefited. Besides many girls could be spared pains."

"Would be very useful in the future years, as a great many diseases occur because of a woman's not taking care of herself while young."

"So many girls wouldn't go astray and do wrong if we were taught the wrongs of the world. I think we should also learn about our sexual relations."

"Sexual relations because of the immoral conditions of the country."

"Because it is war time and the sight of a man in uniform makes a great impression on young girls. Girls near cantonments are in great danger, too. The schools are the best way to teach this subject."

"We are soon going to earn our own living and come among temptations and a girl who is not taught correctly may come out disastrously."

"As we all know that modern girls like to go out for good times, meet all sorts of people, but yet when they do go out with young men, they naturally lose their minds and let the young man rule over them, and so I believe that a special topic should be taken up that would include all the

personal business a girl goes through, and when out with company will be able to take care of herself."

"Would help every girl in every way, I am quite sure, for the majority of young people [girls] do not realize how important it is for them to know it especially in the condition the country is in at the present day."

"Sexual relations ought also to be taken up because of the immorality. Many girls go astray."

"Sexual magnetism because I think that girls of our age should have a clean and frank knowledge of it."

"When we read books about it or hear people discuss it we don't understand it fully, and usually get a wrong impression about it. We may hear this topic discussed through bad sources and we are apt to become acquainted with only the bad parts of the subject."

"Many girls feel that the sex relation is vulgar and is very repugnant to them. They have a wrong opinion which ought to be rectified by the hygiene teacher, and told in a way that would not make us hate the other sex for this."

"Pregnancy is the suggestive topic. I think we need to know this topic because

"(1) We are old enough to know something about it.

"(2) We are old enough to understand it.

"(3) We do not know anything about it and when we will grow older we will not know how to go about. We are no babies. We have passed the menstruation period and shall know how children are reproduced. We know that there is something about the man and woman, but we do not know what and when."

8. The importance of instruction in sex hygiene has been increasingly obvious to those who give frank attention to the problems involved. The conditions in regard to the segregation of large numbers of men under new surroundings and new routines have again brought the importance of the subject to the foreground. The temptations attendant upon these new conditions have aroused a great deal of alarm, and many who but a few years ago viewed instruction of youth in matters of sex life as in every way objectionable are now ready to consider both the desirability and the feasibility of utilizing



educational forces to combat the personal and social dangers involved.

In this city there was considerable agitation over sex instruction in the schools some ten years ago. In a few schools tentative experiments were undertaken, but nowhere with full official support or sanction. Indeed, from time to time, during the past dozen years, there have been murmurs of disapprobation accompanied by veiled threats of eliminating biology teaching from the schools altogether, on a variety of pretexts, but chiefly because of the fear that instruction in this subject introduced young people to matters of which they are best kept in ignorance.

9. The question for educators and administrators of youth is not, however, whether young people should or should not be kept in ignorance. The nature of the animal and the nature of our living conditions answer these questions for us. Nothing short of solitary confinement will keep young people in ignorance. The question for the educators and administrators is whether the ideas and ideals that the young people demand and eventually obtain shall be sound and helpful, or perverted and perverting.

"Many girls, no matter on what friendly basis with her mother, hates to go up to her and ask her certain topics, perhaps heard in conversation or read in books."

"Some parents are ashamed to tell their girls everything, so that is why I think they should be told so in school."

"Some mothers are ignorant and don't think that their daughters know about it."

"Many girls are so unfortunate as not to have mothers or else to have mothers who do not speak confidentially to their children, and it would be a great benefit for them to speak of it in school. Of course, there would be some girls who know all about it through their mothers, but I think it would not harm them to listen to any advice given in school."

"There are many girls with no mother or very near female relation that can tell them all they need to know, and if anything should happen



in a girl's life, she does not think it proper to speak to a male even if it is her father."

"New York City is a large place and a place where care must be taken for young girls whose parents think it foolish to tell them important things."

"If a girl is not told something that she wants to know she usually asks her friend, her friend knows as much as she does and gives her a wrong idea, therefore, a teacher should take up this subject."

"On the streets they learn it in a vulgar, common way. Why not teach it to us in school in a refined and interesting way?"

"The high school girls ought to know the differences in life in a clean way and not the vulgar way of the streets."

Those of us who have been interested in promoting "democracy in education," whatever that may mean, are frequently taunted with the question whether we would ask the children what they wish to have taught or how they wish to be taught. Without answering this large question categorically, I submit that it would be eminently unwise to ignore the articulate wishes of these young women, and of the millions like them on the way to womanhood and motherhood. And what the girls want to know is very much like what the boys want to know. If we do not teach them, others will.

TABLE I

## IMPORTANT

Skin .....	127
Feet .....	118
Teeth .....	50
Constipation .....	38
Kidneys .....	27
Personal cleanliness .....	24
Digestive system .....	23
Hair .....	19
Not important .....	5

TABLE II  
SUGGESTIONS

Eyes.....	57	Home nursing.....	3
Sex hygiene.....	46	Nervous system.....	3
Menstruation.....	37	Alcohol.....	2
Care of body.....	29	Sleep.....	2
Clothes.....	29	Ventilation.....	2
Food; diet.....	28	Blood poisoning.....	2
Diseases.....	26	Pregnancy.....	2
First aid.....	21	Patent medicines.....	1
Ears.....	13	Adenoids and tonsils.....	1
Heart.....	9	Self-control.....	1
Care of hands and nails.....	7	How habits are formed.....	1
Exercise.....	7	Hygiene of skeleton.....	1
Throat and nose.....	5	Habits.....	1
Bacteria.....	5	Spine.....	1
Teeth.....	5	Headaches.....	1
Lungs.....	4	Corsets.....	1
Sense organs.....	4	Care of babies.....	1
Blood.....	3	Health of the business girl.....	1
Posture.....	3		

TABLE III  
MISCELLANEOUS SUGGESTIONS

Housekeeping.  
 How a school girl should spend her day.  
 Work of the Board of Health.  
 Sanitary conditions in the city.  
 Sanitation of schools.  
 Health in places for work.  
 Manners.  
 Voice training.  
 Laboratory work.  
 To have experiments.  
 Chemistry and biology.  
 Plant life.  
 Care of domestic animals.  
 Forestry.  
 Evolution of man.  
 Natural resources.

### **\*III. A PRELIMINARY ATTEMPT TO DEVISE A TEST OF THE ABILITY OF HIGH-SCHOOL PUPILS IN THE MENTAL MANIPULATION OF SPACE RELATIONS**

---

**H. N. IRWIN**

Fairmount Junior High School  
Cleveland, Ohio

---

#### **DIRECTIONS FOR GIVING EACH TEST**

The primary purpose of this test is to compel the pupil to get the answer to each question through mental manipulation of the data involved solely and without any assistance from drawings or other external devices.

To this end the teacher is asked to observe the following procedure in giving the test:

1. Pupils clear desks of all books, papers, etc., and have pencil or pen only before them.
2. The teacher passes out the test to the pupils telling them they may read the first page of directions but may not turn over the page.
3. Pupils fill out the blanks on the first page.
4. As soon as the blanks are filled out the teacher reads over to the pupils the directions on the first page of the test.
5. Noting the time, the teacher announces: You may turn over the page and begin.
6. At the end of exactly 30 minutes all pupils stop work and hand in papers immediately. Those who have answered all questions before the time expires hand in papers as soon as they have done so.
7. During the 30 minutes occasional observation of the pupils is necessary to prevent some from using external devices to get the answer, e.g., drawing figures on the margin, folding paper, using coins, etc.

\*Continued from page 670 of the November issue of the *Review*.

## DIRECTIONS TO PUPILS

Fill in the following:

Date..... School.....  
 Name..... Age..... (nearest year)  
 Class..... Period..... Room.....

Write below the subjects which you are studying this semester:

.....  
 .....  
 .....

The following pages contain questions which you are to answer exactly as follows:

1. Read the question carefully.
2. Decide upon the answer in your mind and without using your pencil or hand in any way.
3. Write the answer in the blank space after the question or make the drawing which the question asks you to make.

Answer as many questions as you can but do not hurry.

Take time enough to get the correct answer.

Remember you are to decide upon the answer in your mind and without using your pencil; draw a figure only when the question asks for one.

## TEST C

1. A circular piece of paper is folded through the center so that the curved edges fall together. This is then folded a second time making all the edges fall together, and this is folded again in the same way. After the third folding, into how many parts is the piece of paper divided by the creases?.....

2. I wish to draw a square on the blackboard and then to divide it into four equal small squares. What is the least number of straight lines that must be drawn to do this?.....

3. Five pennies are placed side by side in a row on the table. A second row is placed above these so that each penny touches two pennies in the first row. How many pennies are there in the second row?..... How many pennies in a third row placed in the same way?.....

4. In the drawing below A is to be placed on either B or C so that the thick line in A will fall on the thick line in B or C. A may be moved around but not turned over. Upon which figure can A be placed?.....Mark where the circle in A will fall on this figure.



Figure 5

5. I wish to make a cardboard box having a three-cornered bottom, three equal sides with square corners, and a top of the same shape and size as the bottom. The box is to be made out of a single piece of cardboard. Draw the piece of cardboard as you would cut it, and show by dotted lines where it is to be creased when folded to make the box.

6. A man starts in a car from town A, rides ten miles south to B, then ten miles west to C, then ten miles south to D. A second man goes from A to D riding west till he is just north of D, then riding south to D. How many miles west does the second man go?..... How many miles south does he go?.....

7. In the figure at the right the distance around circle A is equal to twice the distance around circle B. Imagine circle A held in place while circle B is rolled completely around it. Make a drawing of the path which point X will follow as circle B is rolled around circle A.

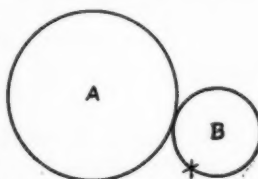


Figure 6

8. I have a square piece of paper on the desk in front of me. I fold it once, placing the upper left hand corner on the lower right hand corner and creasing. I then fold this, placing the lower left hand corner and upper right hand corner side by side on the lower right hand corner and creasing. I now fold this, placing the upper right hand corner of it on the lower left hand corner and creasing. Make a drawing of the paper as it will appear to me when unfolded, showing the creases.

9. A carpenter has a block of wood that is a perfect cube. How many times must he saw through the entire block to divide it into eight equal small cubes?

10. The circle at the right represents a round metal disk like a victrola record that is made to rotate or turn about its center X, in the direction shown by the arrow. As it rotates a needle point moves from A across the disk to X and back again to A in the same time that it takes the disk to make half a complete turn.

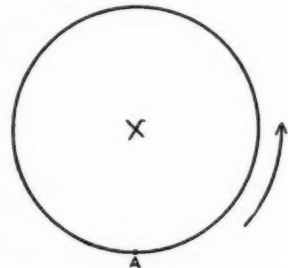


Figure 7

Draw a line on the disk showing the path followed by the needle point.

11. What is the least number of times that a square piece of paper must be folded so that the creases will divide it into 16 small squares?.....

12. A square cake is cut by drawing a knife from each corner to the opposite corner and from the middle of each side to the middle of the opposite side. How many strokes does the knife make?..... Into how many pieces is the cake cut?.....

13. Five barrels are lying in a row on the ground with sides touching and kept from rolling apart by a short stake at each end of the row. A second row of barrels is piled on top of this first row, a third row on the second, and so on. Altogether how many barrels can be thus piled above the first row of five?

14. In the drawing below A is to be placed on either B or C so that the thick line in A will fall on the thick line in B or C. A may be moved around but not turned over. Upon which figure can A be placed?..... Mark where the circle in A will fall on this figure.



Figure 8

15. I wish to make a cardboard pyramid having a three-cornered bottom and three sides meeting at the top in a point. The bottom and sides are all to be of the same shape and size. The pyramid is to be made out of a single piece of cardboard. Draw the piece of cardboard as you would cut it, and show by dotted lines where it is to be creased to make the pyramid.

16. A man starts in a car from town A, rides ten miles east to B, then ten miles north to C, then ten miles east to D. A second man goes from A to D riding north till he is just west of D, then riding east to D. How many miles north does the second man go?..... How many miles east does he go?.....

17. In the figure at the right the distance around the large circle is equal to three times the distance around the small circle. Imagine the large circle held in place while the small circle is rolled completely around inside it. Make a drawing of the path which point X will follow as the small circle is rolled around inside the large circle.

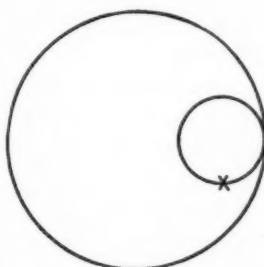


Figure 9

18. I have a square piece of paper on the desk in front of me. I fold it once, placing the lower left hand corner on the upper right hand corner and creasing. I then bring the upper



left hand corner, lower right hand corner, and upper right hand corner of this folded piece together at the midpoint of the folded edge and crease. Make a drawing of the paper as it will appear to me when unfolded showing the creases.

19. A block of wood in the shape of a cube is painted on all sides. It is then cut into eight equal small cubes. How many of these small cubes are painted on two sides only?..... on three sides only?.....; on four sides only?.....

20. The circle at the right represents a round metal disk like a victrola record that is made to rotate or turn about its center X, in the direction shown by the arrow. As it rotates a needle point moves from A across the disk to X and back again to A in the same time that it takes the disk to make one complete turn. Draw a line on the disk showing the path followed by the needle point.

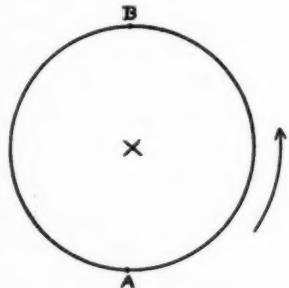


Figure 10

21. If you take a sheet of paper, fold it once making the bottom edge fall on the top, fold it a second time making the folded edge fall on the top, then fold it a third time in the same way, how many layers of paper have you after the last folding?.....

22. I wish to draw a square on the blackboard and then to divide it into nine smaller squares. What is the least number of straight lines that must be drawn to do this?.....

23. Six tennis balls are laying side by side in the form of a circle upon a table. How many tennis balls can you place around the outside of this circle of six balls if each ball that you place on the table must touch two of the six balls already laying there?.....

24. In the drawing below A is to be turned over and then placed on either B or C so that the thick line in A will fall on

the thick line in B or C. Upon which figure can A be placed after it is turned over?..... Mark where the circle in A will fall on this figure.



Figure 11

25. I wish to make a cardboard box 15 inches long, 10 inches wide, and 5 inches high, and having a bottom, two sides, two ends, and a top. The box is to be made out of a single piece of cardboard. Draw the piece of cardboard as you would cut it, and show by dotted lines where it is to be creased to make the box.

26. A man starts in a car from town A, rides twenty miles west to B, then twenty miles north to C, then ten miles east to D, then five miles south to E. A second man goes from A to E, riding west until he is just south of E, then riding north to E. How many miles west does the second man go?..... How many miles north does he go?.....

27. In the figure below make a drawing to show the path which point A will follow as the oblong curve is rolled over and over on the straight line until it reaches the other end of the line:

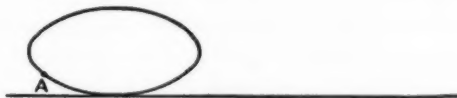


Figure 12

28. I have a square piece of paper on the desk in front of me. I fold over the top half, making the top edge fall on the bottom edge and creasing. I next fold up the lower left hand and lower right hand corners of this, making them fall side by side along the folded edge. I now fold over the left half of this making it fall on the right half edge to edge. Make a

drawing of the paper as it will appear to me when unfolded, showing the creases.....

29. A block of wood in the shape of a cube is painted on all sides. It is then cut into 27 equal small cubes. How many of these small cubes are painted on one side only?.....; on two sides only?.....; on three sides only?.....

30. The circle at the right represents a round metal disk like a victrola record that is made to rotate or turn about its center X, in the direction shown by the arrow. As it rotates a needle point moves from A across the disk to X and back again to A in the same time that it takes the disk to make two complete turns. Draw a line on the disk showing the path followed by the needle point.

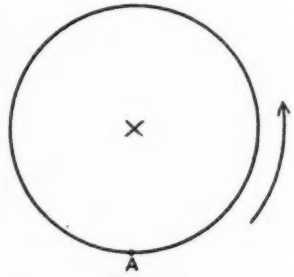


Figure 13

#### TEST D

1. A pupil has a sheet of paper 14 inches long and 10 inches wide. On it he wishes to draw a map so that there will be a space of 2 inches left between each edge of the map and the edge of the paper. What must be the length and width of the map? Length.....Width.....

2. It is 5:12 o'clock. Suppose the hands change places so that the large hand takes the place of the small hand while the small hand takes the place of the large hand; what time would it then be?.....

3. A square sheet of paper eight inches long on each side is to be divided by lines into small squares two inches long on each side. How many lines must be drawn across the sheet of paper to do this?.....

4. Four points are placed on the blackboard as if they represented the corners of a four-sided figure. How many different straight lines can be drawn between these points?.....

5. Using the letters and arrows only show how you would place A, B, C, D, and E, in the large square so as to fill it. The numbers show the size. A, B, C, D, and E, may be turned around or over in any way. Use the letters and arrows only to show where you would place them. Draw no lines in the large square.

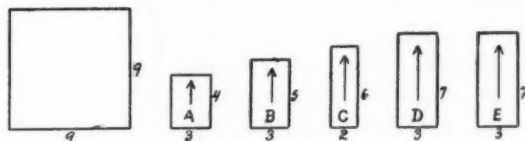


Figure 14

6. Three men, A, B, and C, start from the same point, A going north three miles, B going east three miles, and C going west three miles. If the straight line distance between them is measured which men are farthest apart?..... Which men are the same distance apart?.....

7. A boy has a square box lid in which he can lay just three rows of three marbles each. If now he places on top of this first layer of marbles a second layer in which each marble touches four marbles of the first layer, how many marbles are there in the second layer?.....

8. In the figure below make a drawing to show the path which point A will follow as the triangle is rolled over and over on the straight line until it reaches the other end of the line.



Figure 15

9. I have a square piece of paper on the desk in front of me. I fold it once placing the bottom edge on the top edge and creasing. I then fold over the left half of this placing the left edge on the right edge and creasing. I next cut a small piece

out of the middle of the folded edge on my left. Make a drawing of the paper as it will appear to me when unfolded, showing the creases and what results from the cutting.

10. The circle at the right represents a round metal disk like a victrola record that is made to rotate or turn about its center X, in the direction shown by the arrow. As it rotates a needle point moves from A, across the disk through X to B, and back again to A, in the same time that it takes the disk to make half a complete turn. Draw a line on the disk showing the path followed by the needle point.

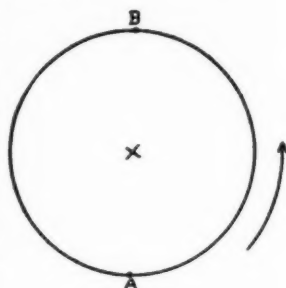


Figure 16

11. A pupil has a square sheet of paper 10 inches long on a side, in the middle of which he draws a square 4 inches long on a side, each side of the square being the same distance from the edge of the sheet of paper. What is this distance?.....

12. It is 6:48 o'clock. Suppose the hands change places so that the large hand takes the place of the small hand while the small hand takes the place of the large hand; what time would it then be?.....

13. Four lines are drawn on the blackboard each one inch apart. Four other lines also one inch apart are then drawn across these in such a way as to make a number of one inch squares. How many squares are thus made?.....

14. A box is to be drawn on the blackboard, each edge being represented by either a solid or dotted line. Altogether how many solid and dotted lines must be drawn?.....

15. Using the letters and arrows only show how you would place A, B, C, D, E, and F, in the large square so as to fill it. The numbers show the size. A, B, C, D, E, and F may be turned around or over it any way. Use the letters and arrows

only to show how you would place them. Draw no lines in the large square.

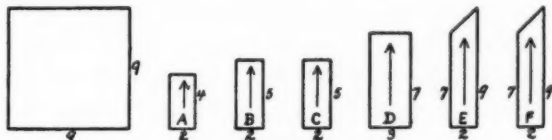


Figure 17

16. Three men, A, B, and C, start from the same point, A going west five miles, B going south five miles, and C going north five miles. If the straight line distance between them is measured which men are the farthest apart?..... Which men are the same distance apart?.....

17. In a show-case there is a pile of tennis balls arranged thus: At the top is a single ball which rests on a layer of four balls arranged in the form of a square and touching each other. Each of these four balls in turn rests on four balls in the next layer. How many balls are there in the layer directly under the four balls?.....

18. In the figure below make a drawing to show the path which point A will follow as the square is rolled over and over on the straight line until it reaches the other end of the line.



Figure 18

19. I have a square piece of paper on the desk in front of me. I fold it once, placing the lower left hand corner on the upper right hand corner and creasing. I then fold this, placing the lower right hand corner on the upper left hand corner and creasing. I next cut a small piece out of the middle of the folded edge on my right. Make a drawing of the paper as it will appear to me when unfolded, showing the creases and what results from the cutting.

20. The circle at the right represents a round metal disk like a victrola record that is made to rotate or turn about its center X, in the direction shown by the arrow. As it rotates a needle point moves from A, across the disk through X to B, and back again to A, in the same time that it takes the disk to make one complete turn. Draw a line on the disk showing the path followed by the needle point.

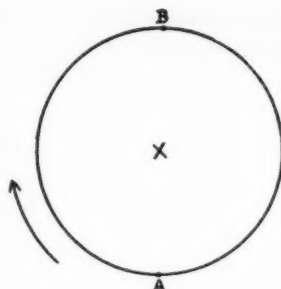


Figure 19

21. A photographer has a picture 24 inches long and 18 inches wide which he wishes to mount on a piece of cardboard so that each edge of the picture will be 3 inches from the edge of the cardboard. What must be the length and width of the cardboard? Length.....Width.....

22. It is 2:36 o'clock. Suppose the hands change places so that the large hand takes the place of the small hand while the small hand takes the place of the large hand; what time would it then be?.....

23. In making a certain square cushion upholstery buttons are sewed on top of the cushion as follows: The buttons are arranged in rows 5 inches apart and 5 inches from the edge of the cushion. The buttons in each row are also 5 inches apart and 5 inches from the edge of the cushion. How many buttons are needed for the top of a square cushion 25 inches long on each side?.....

24. A square cornered trunk with open lid is to be drawn, using a straight line to represent each edge of the top and each edge of the bottom except the edge of the top and the edge of the bottom along which the hinges are fastened. Since these two edges come together they are to be represented by one line. Each of the other edges is to be represented by a



separate straight line. How many lines must be drawn to represent the entire figure?.....

25. Using the letters and arrows only show how you would place A, B, C, D, E, F, H, K, in the large square so as to fill it. The numbers show the size. A, B, C, D, E, F, H, and K, may be turned around or over in any way. Use the letters and arrows only to show where you would place them. Draw no lines in the large square.

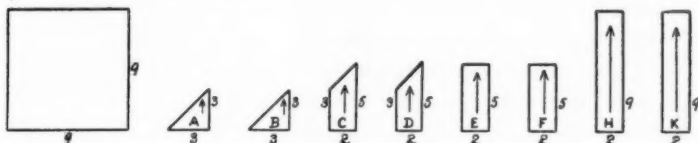


Figure 20

26. Three men, A, B, and C, start from the same point, A going northwest ten miles, B going southeast ten miles, and C going southwest ten miles. If the straight line distance between them is measured which men are the farthest apart? ..... Which men are the same distance apart? .....

27. I have a small three-cornered box along any one side of which I can just fit a single row of three tennis balls. Altogether how many tennis balls can I place in the box?.....

28. In the figure below make a drawing to show the path which point A will follow as the five-sided figure is rolled over and over on the straight line until it reaches the other end of the line.



Figure 21

29. I have a square piece of paper on the desk in front of me. I fold it once placing the right edge on the left edge and

creasing. I then fold up the lower half of this placing the bottom edge on the top edge and creasing. I next cut a hole through the middle of this while keeping it folded. Make a drawing of the paper as it will appear to me when unfolded showing the creases and what results from cutting the hole through the folded paper.

30. The circle at the right represents a round metal disk like a victrola record that is made to rotate or turn about its center X, in the direction shown by the arrow. As it rotates a needle point moves from A, across the disk through X to B, and back again to A, in the same time that it takes the disk to make two complete turns. Draw a line on the disk showing the path followed by the needle point.

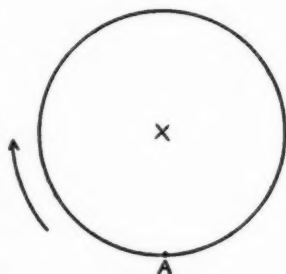


Figure 22

## Educational News and Editorial Comment

### A FEDERAL DEPARTMENT OF EDUCATION

A bill was introduced in the United States Senate on October 10 by Senator Hoke Smith of Georgia providing for a Department of Education in the federal government and appropriating in addition to the expense funds for such a department the sum of one hundred million dollars for federal support of various types of education.

The bill, which is too long to quote in full, provides for a secretary of education and at least three assistant secretaries. It leaves the determination of the extent to which the new department shall absorb the functions of other departments and commissions to the President. Thus the relation of the new department to the educational work now being carried on by the Department of Agriculture or by the Children's Bureau of the Department of Labor would depend on the President's ruling. So also would the status of the Federal Board for Vocational Education.

---

The *School Review* is published monthly from September to June by the University of Chicago. It is edited and managed by the Department of Education as one of a series of educational publications. The series including also *The Elementary School Journal* and the *Supplementary Educational Monographs*, is under a joint editorial committee and covers the entire field of educational interests.

#### JOINT EDITORIAL COMMITTEE

CHARLES HUBBARD JUDD, *Chairman*  
SAMUEL CHESTER PARKER  
JOHN FRANKLIN BOBBITT

#### Articles and Editorials of

##### *The School Review*

ROLLO LA VERNE LYMAN  
FRANKLIN WINSLOW JOHNSON

#### Reviews

HAROLD ORDWAY RUGG  
ROLLA MILTON TRYON

#### Articles and Editorials of

##### *The Elementary School Journal*

FRANK NUGENT FREEMAN  
HARRY ORRIN GILLET

#### *Supplementary Educational Monographs*

WILLIAM SCOTT GRAY  
MARCUS WILSON JERNEGAN

#### ADVISORY BOARD OF THE SCHOOL REVIEW

WILLIAM McANDREWS, New York City

JEROME O. CROSS, Fresno, California

I. M. ALLEN, Springfield, Illinois

H. C. MORRISON, Hartford, Connecticut

H. L. MILLER, Madison, Wisconsin

H. V. CHURCH, Cicero, Illinois

ALEXANDER INGLIS, Cambridge, Mass.

E. A. MILLER, Oberlin, Ohio

FRED C. AYER, Seattle, Washington

The bill describes only in broad general terms the duties of the new department. It is to encourage investigations, especially with reference to illiteracy and immigrant education; it is to promote public-school education, with emphasis on the problems of rural districts; it is to be active in developing public-health education and recreation and in establishing and aiding agencies for preparation of teachers. It is to encourage higher and professional education.

The hundred million dollars is to be apportioned to the following purposes in the following fractions: three-fortieths to combating illiteracy, three-fortieths to Americanizing immigrants, one-half to the improvement of public schools of less than college grade, two-tenths for the promotion of physical and health education and recreation, and three-twentieths for the training of teachers.

In providing for the distribution of this money to the states two principles are adopted: Each state is to share according to its needs and according to its willingness to contribute from its own treasury new funds for the development of schools.

The bill thus launched has the support of the senator who in recent years has had more influence than any man in Congress in securing educational legislation. It is essentially the measure proposed by the commission of the National Education Association and approved by the Pittsburgh meeting. It is approved by a number of the leading universities and colleges.

It will meet the theoretical opposition of those who do not believe in federal participation in education. It will encounter difficulties because the educational activities of the federal government which are now numerous enough to answer the above-mentioned objection are so widely distributed through other departments and commissions as to make a readjustment a most delicate undertaking. It will doubtless undergo some revisions on its way through Congress.

It will get the support of all who see the importance of a democratic education of national scope. Today our states are provincial, and many of them are so far behind in their policies of public education and child labor that it is perfectly evident that a federal agency must be created to cope with our educational problems.

The example of England in this matter is clear. In the midst of war England passed the most progressive educational measure of her history because all political parties recognized that the most important problem of the reconstruction period will be the improvement of popular education. Can we who boast a more liberal educational policy than any other nation do less?

The editors of the *School Review* believe that no more important step has ever been taken in American education. The consideration of the national problems of education is now before us. We ought as members of the educational profession to see to it that the issues presented by this bill are clearly understood by teachers and laymen. There ought to be constructive suggestions from all sides. Teachers' meetings should give time and thought to the formulation of intelligent opinion. The occasion is one which gives the best opportunity ever afforded for our profession to throw off to its own advantage and to the advantage of public schools in all sections the narrow provincialism with which we have too often been justly charged.

#### THE ENGLISH COMMISSION

For the last month and a half an English commission on higher education has been visiting the leading universities and colleges of this country for the purpose of promoting a more intimate relationship between the scholars of England and America. The members bring with them the message that English universities have modified their methods of granting

degrees in the hope and expectation that American students will come to England for graduate work. They are eager to find out what kind of courses should be offered during the period of demobilization in order to attract to English universities American boys who are in Europe. They want to find out what opportunities America has to offer to English students in order that the interchange of students and instructors may be reciprocal.

This English commission will doubtless be followed by like groups of visitors from France and Italy, and it is not unlikely that commissions will come from the countries which have seemed to us more remote. For example, as Russia emerges into her new national life her people are sure to seek a fuller contact with our educational institutions. The Balkan states to some of which our missionary teachers have gone are sure to come into a new and more intimate relation with us.

The coming of the English commission suggests two reflections regarding lower schools. It will be an unfortunate oversight if this group or any like group goes home without gaining some understanding of the organization of the whole scheme of education in the United States. The colleges and universities of this country have been so largely influenced by the secondary schools during the last two decades that it is literally true that no one can understand our higher education who does not cultivate an intimate knowledge of our high schools.

Secondly, no commission which visits us should be allowed to go away without understanding that our schools and colleges are not under central control and hence are at once freer and more variant than anything that is known in Europe. This is in some respects a weakness of our system, but it is also a source of strength. Commissions will not understand us until they know what is meant by the statement that we have grown up educationally under local control. In Europe there is

always a central control which assumes responsibility and is held responsible. In the United States we experiment freely, each administrative unit following in very large measure its own judgment. The check on our freedom is developing in the form of a science of education which measures and compares results. Europe is far behind us in these scientific studies. A commission from a centrally controlled educational system will have difficulty in understanding this even in two months of inspection.

There is one practical suggestion which may be made with a view to correcting some of the present deficiencies in our international educational relationships. There ought to be a permanent avenue of communication with our allies. There should be a permanent commission on this side of the Atlantic to deal with the problems that are brought up by the English commission.

All this comes back to the matters discussed in the earlier comments on the last few pages. The United States needs a national educational organization.

#### THE GROWING NATIONAL EDUCATION ASSOCIATION

The National Education Association has today the largest membership in its history—somewhat over 30,000. The executive officers are confident that by January 1 there will be more than 50,000 and that by spring or summer the goal set, namely, 100,000, will be reached.

The growth of the Association ought to kindle professional enthusiasm in the minds of teachers in every grade of schools. Secondary teachers and principals have up to this time held aloof because they have felt that the Association since the early nineties has concerned itself chiefly with elementary-school problems and sometimes with matters bearing very little on public education. There is an opportunity and a method of redeeming the past decades. The reason why a



few energetic politically minded individuals were able nearly to wreck the Association was that the able-minded professional teachers of the country did not participate. We have passed through a period of rank individualism. People of no productivity in education have jockeyed for personal advantage. The way to defeat that sort of thing is to get a real mission for the Association and then bring into the membership enough people to render it impossible for the Association to be controlled for local or petty ends.

This program is promisingly launched. New members are coming in. Many of them are frankly in on trial. They want a constructive program.

Here are two items for such a program: First, the Association ought to undertake to eradicate every trace of the breach between elementary and secondary schools. This country has contributed to the democracy of the world a continuous school system. Our history in this matter is unique. We ought to realize fully the ideal which has placed our secondary school in the relation which it occupies to elementary education.

The second item on which teachers ought to unite is a thoroughgoing reform in the content of American education in order to bring into the schools in a position of first importance instruction in American institutions. In order that there may be a place for this sort of study, there must be readjustment of the traditional subjects. Modern American institutions cannot be approached indirectly through something so remote that the pupil never comes into contact with the world in which he lives. There is a social and professional problem here with which the teaching profession must cope.

Let us have once more, as in the days when Eliot and Harris led the National Education Association in the ways of intelligence, discussions of the course of study. Let the Association set up international relations and interstate policies. Let us throw overboard without debate and even

without acrimony those who have steered the Association into shallow waters.

President Strayer is to be congratulated on the success of the campaign for the enlargement of the Association. The proposals for the creation of a representative organization ought to be put through without further parley and then the Association ought to begin constructive work on real policies.

#### HIGH-SCHOOL DISTRICTS

The state superintendent of Illinois in a recent bulletin calls the attention of county superintendents to a statute which was passed by the legislature of Illinois some time ago.

Your attention is called to the following provision of the law enacted by the Fiftieth General Assembly and found on page 21 of Circular 123 issued by the Department of Public Instruction under section 90.

"If any high-school district organized under any of the provisions of this Act, or organized under any statute in force at the time of its organization, or legalized by any statute, shall for one year fail to maintain a recognized high school, it shall be the duty of the ex-officio board of the county in which the larger part of the district lies to dissolve said high-school districts, and attach the territory of the district to other high-school districts, or to non-high-school districts, or in part to both. All funds or property of such district shall be distributed by the county superintendent of schools as provided in section 92 of this Act."

This applies to any township or community high school whether organized under the general school law (sections 85, 86, 87, 88), or under the act of 1911 and validated by the action of the Fiftieth General Assembly or under the community high-school provision (section 89).

The attention of all school boards, in your county for districts created under any of these provisions, who are not now maintaining a recognized high-school, according to the standards approved by the Superintendent of Public Instruction as defined in section 95, should be called to this provision and they should immediately communicate with this office and take steps without delay to secure such recognition; otherwise it will be the duty of the county ex-officio board to dissolve the district and dispose of its territory, and of the county superintendent, to dispose of its funds and other property as provided in this section.

The law referred to in Superintendent Blair's communication is of general interest because it calls attention to one defect in the educational organization of most of our states. This defect appears in the fact that there is no adequate provision for the complete districting of the state for secondary education. The constitutions of American states all provide for the districting of the whole territory for purposes of elementary education. There is no foot of ground in these states that is not located in some school district. High schools, on the other hand, came at first as luxuries, and the principle was not recognized that the territory of the states ought to be so divided that every part of the state would be in some high-school district. As secondary education has become more and more common the practice of arranging high-school districts in a somewhat irregular fashion has grown up. In general, the district covered by a high-school, especially a rural high-school, must of necessity include more territory than the district provided for elementary education. The high-school district very frequently does not coincide, therefore, with the elementary district. In the absence of explicit legislation providing for the districting of the whole state certain sections are only vaguely provided for. Indeed, sometimes no provision whatsoever is made in certain parts of the state. Furthermore, where a high-school district is provided, it very frequently fails to carry out its purpose because the compulsory education law does not operate to enforce the maintenance of a high-school as it does to enforce the maintenance of an elementary school.

The contrast between the high-school situation and the college and university situation is also worth mentioning. The whole state is in a very proper sense of the word the territory of the state university and of the agricultural college, and because this is so there is no part of the state which is not included in the district of the higher institution. The high school, therefore, falls between the district school and the state

university and is not provided for without explicit action on the part of the legislature.

High-school officers ought to study the question of the proper districting of the state for high schools. They will find a number of statutes similar to the one referred to in Superintendent Blair's note which approach the problem but do not solve it. They will also find a great lack of attention to the type of problem to which this note calls attention.

#### SOCIETY OF COLLEGE TEACHERS OF EDUCATION

*Committee work.*—The Society of College Teachers of Education is carrying forward a progressive program of study-problems through a committee organization which was approved at the last meeting of the Society at Atlantic City.

A fair proportion of the members have indicated an interest in the work of one of these committees. Members of more of the committees are urged to do so. The committees together with the chairman of each, are as follows:

1. Uniform Nomenclature in Education, W. C. BAGLEY, *Chairman*, Teachers College, Columbia University.
2. The Organization of College Studies in Education, W. C. RUEDIGER, *Chairman*, George Washington University, Washington.
3. Professional Curricula for Different Types of Teachers with Immediate Attention to Supervisors and Superintendents, A. J. JONES, *Chairman*, University of Pennsylvania, Philadelphia.
4. Standards for Departments, Schools, and Colleges of Education, J. E. BUTTERWORTH, *Chairman*, University of Wyoming, Laramie, Wyoming.
5. Uniform Plan of Issuing State Certificates to College Graduates, HELEN UPDEGRAFF, *Chairman*, University of Pennsylvania, Philadelphia.
6. Practice Teaching for Secondary Teachers, A. R. MEED, *Chairman*, Ohio Wesleyan University, Oberlin, Ohio.
7. Placing Bureaus of Colleges and Universities, F. E. THOMPSON, *Chairman*, University of Colorado, Boulder, Colorado.

A member interested and willing to co-operate in the work of any committee, should write direct to the chairman.

G. M. WILSON, *Secretary*

## Educational Writings

### I. RECENT LITERATURE IN THE FIELD OF VOCATIONAL EDUCATION AND GUIDANCE

---

EMERY T. FILBEY

School of Education, University of Chicago

---

In this paper attention is called to the most significant literature appearing in the field since January, 1918, at which time a similar list was published in the *School Review*. In addition to the usual publications to be looked for the war has brought forth a large quantity of interesting material in the form of bulletins, reports of committees and commissions, and other special publications. Attention is called to such of these publications as seem to promise most suggestive material for school people. The list is far from complete, but it is thought to be representative.

#### A. BOOKS

1. BREWER, JOHN M. *The Vocational Guidance Movement*. Macmillan, 1918. Pp. xi+332.

In this volume the author has given a general review of the vocational guidance movement, its development, typical schemes and systems of guidance, and probable lines of immediate development. He refers to most of the significant literature on the subject and includes a carefully selected bibliography. In calling attention to the literature or in sighting specific examples of guidance work, the author assumes a critical attitude which is especially helpful because of its constructive spirit. He holds that guidance should be tied up very closely with the public-school system and cites the dangers growing out of many of the schemes for what he terms "pseudo-guidance." In this same connection he points out the dangers besetting the path of those who place too much confidence in experimental psychology. He holds that this type of guidance has gone little beyond the experimental stage. The book is especially valuable as a text for college students or as a reference for those interested in this phase of educational and vocational work.

2. ADAMS, HENRY C. *Description of Industry: An Introduction to Economics*. Henry Holt & Co., 1918. Pp. x+270.

School people interested in the organization and administration of vocational education, especially that part of it which relates to trades and industry, have found it necessary to become more or less familiar with the general economic foundation upon which our present industrial organization rests. A mastery of the technical phases of the economics of industry has proven a laborious process for those who have not been so fortunate as to receive such training as a part of college experience. Mr. Adams has given the reader with limited time or limited technical training in economics a presentation covering the fundamental principles of economics involved in modern industrial development. He covers such topics as "The Legal Framework of Industry," "Machinery in Industry," "Motive in Industry," "Control in Industry," "The Market, Laws of Price," "Sharing the Profits," "Business Integration," and other important topics in a non-technical fashion and with sufficient clearness and brevity to make them intelligible to the lay reader. The book is suitable for advanced high-school or college classes. It is of especial interest to all teachers or students of vocational education.

3. LEAKE, ALBERT H. *The Vocational Education of Girls and Women*. Macmillan Co., 1918. Pp. xix+430.

This book was written as a companion volume for the author's *Industrial Education—Its Methods, Problems and Dangers*, which appeared in 1913. The present volume deals primarily with the training of fourteen- to sixteen-year-old girls, especially with the training of that group who are to become homemakers or wage-earners without having had the advantage of professional training. In this respect the book fills an important place in the field of industrial education literature, because of the tendency of most writers on the subject to stress the training of boys rather than the training of girls.

Part I deals with education for the home. The author discusses training for homemaking through courses offered in the elementary and high school, through continuation and trade schools, and through special extension courses connecting up with the actual homemaking operations. Part I closes with a discussion of the servant problem, in which the author calls attention to important factors influencing the household servant situation. He proposes a program for reorganizing, training, and administration of work in the home which is interesting if not immediately practicable.

Part II is devoted to training of women for industrial work outside of the home. In this section the author calls attention to the lines of work open to women and presents typical examples of successful training courses. Considerable space is given to a discussion of such training agents as the Manhattan Trade School. Throughout the text the author makes an appeal for a reasonable amount of general training along with training for the development of special skills. It is his feeling that only through such general training will the girl be given sufficient background of experience to enable her to adjust to changing industrial conditions.

4. ALLISON, MAY. *Industrial Experience of Trade School Girls in Massachusetts*. Boston, Mass. Women's Educational and Industrial Union, Pp. 275. \$.080 net

Educators have been anxious to know just how the trade school would connect with industry and what effect such training would have in the matter of individual adjustment for the young worker. This volume presents a study of the industrial experience of trade-school girls in Boston and Worcester. Data collected through a careful survey have been compiled in tabular form showing details of training, wage, and trade adjustment.

5. DEAN, ARTHUR D. *Our Schools in War Time and After*. Ginn & Co., 1918. Pp v+334.

The author points out the ways in which our schools can assist in meeting emergency war needs. He gives examples of typical school activity which has been successfully organized in an effort to carry forward each line of activity enumerated. The program proposed includes work for schools on all levels from the elementary grades to and through the university. That part of the book which deals with the Red Cross and Farm Cadet organizations will be of especial interest to industrial arts instructors.

#### B. BULLETINS AND REPORTS

1. THE NATIONAL ASSOCIATION OF CORPORATION SCHOOLS. *Bulletin*. 130 East 15th Street, New York City. Published monthly. \$2.00 a year.

As indicated by the name, this association is interested in furthering the interests of, and in disseminating information concerning, successful practices in corporation schools. The association has in its membership the most progressive industrial organization of the country. The following list of articles which have appeared in recent numbers of the bulletin will indicate the type of interest which received attention: "A Factory School



Experiment"; "Vestibule Schools"; "War and the Woman Wage-Earner"; "Co-operative Management"; "The Industrial Value of Recreation."

2. U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS.

a) *Monthly Review of the U. S. Bureau of Labor Statistics.*

This publication is of especial interest to supervisors and directors of industrial education. The following are some of the items covered in a recent issue: "Labor and the War"; "Provision for Disabled Soldiers and Sailors"; "Prices and Cost of Living"; "Wages and Hours of Labor." The June, 1918, number contains a report of the Rochester, New York, National Conference of Employment Managers.

b) "Proceedings of the Employment Managers' Conference, Philadelphia, Pa., 1917," *Bulletin of the U. S. Bureau of Labor Statistics.* Whole Number 227. 15 cents.

There is probably no more significant movement in industry today than that centering around the work of the employment manager. The material presented in this bulletin is of especial interest to all those who desire to be well informed concerning these progressive industrial practices. Labor turnover, selection of employees, and systems of follow-up and training in service receive special consideration.

c) "Public Employment Offices in the United States," *Bulletin of the U. S. Bureau of Labor Statistics*, No. 241, 1918.

Labor shortage during the war emergency has given rise to the reorganization and extension of the Public Employment Office. The relation of this office to training for, and subsequent service in industry, demands that those interested in industrial education become informed as to the details of this organization.

3. NATIONAL SOCIETY FOR VOCATIONAL EDUCATION. Publications. 140 West 42d Street, New York City. Free. ✓

a) *Newsletter.*

A monthly letter calling attention to vocational training activities going forward throughout the country. One section is devoted to "New Books" and important "Periodicals."

b) *Bulletins.*

A series of bulletins calling attention to problematic work in the field of vocational education. Recent bulletins are as follows: No. 26, "Problems of Administering the Federal Act for Vocational Education"; No. 27,

"Vocational Training in War Time." In these two bulletins are published the addresses delivered at the Philadelphia Convention, February 21-23, 1918.

4. THE FEDERAL BOARD FOR VOCATIONAL EDUCATION. Publications.

- a) *Bulletin No. 14*, Agricultural Series No. 2, "Reference Material for Vocational Agricultural Instruction," June, 1918.

Intended as a guide to be used in the building up, cataloguing, and use of a working library for agricultural instruction as outlined by the Federal Board.

- b) *Bulletin No. 15*, "The Evolution of National Systems of Vocational Re-education for Disabled Soldiers and Sailors." By DOUGLAS C. McMURTRIE. Prepared at the Red Cross Institute for Crippled and Disabled Men. May, 1918. Pp. 318.

This bulletin traces the development of national systems of rehabilitation in each of the leading countries at war at the time of the entrance of the United States. In tracing the development in each country it deals with such items as national organization, schools, and methods of organization, agricultural re-education, placement, prosthetic appliances, etc. The bulletin contains a very complete bibliography.

- c) *Bulletin No. 18*, "Evening Industrial Schools," September, 1918.

A bulletin covering the establishment and maintenance of evening schools under the Smith-Hughes provision. It also presents suggestive courses which have been tried out in some of the most successful evening schools now in operation.

5. UNITED STATES BUREAU OF EDUCATION. Bulletins.

- a) *Bulletin No. 19*, 1918, "Vocational Guidance in Secondary Schools."

The material for this bulletin was brought together under the auspices of the National Education Association, the Commission on the Reorganization of Secondary Education. It is the report of a committee of which Professor Frank M. Leavitt was chairman, and represents the thought of those who have been most closely identified with the vocational guidance movement. The bulletin should prove invaluable to those interested in organizing or administering schemes of guidance in connection with their schools. Students of the vocational guidance movement cannot afford to miss this opportunity to become familiar with the latest expression of expert opinion on the subject.

- b) Report of William A. Bawden, Expert on Industrial Education for the Department of Education.

This report is to be found in the *Report of the Commissioner of Education* for each year. It is a survey of the year's work in industrial education throughout the United States.

6. *How to Overcome the Shortage of Skilled Mechanics by Training the Unskilled.*

Bulletin of the National Section on Industrial Training for the War Emergency, 107 Council National Defense, Washington, D. C., Pp. 45. Free.

This bulletin is an appeal to manufacturers asking that they establish "vestibule schools" for the training of their workers. Attention is called to the enormous waste in time and money occasioned by the present method of discharging an employee when it is discovered that he does not have the skill required to do a given piece of work. It is a plea for such training as would result in an economic saving for the manufacturer and at the same time make possible definite lines of promotion and permanency of employment for the worker. Mention is made of successful work being done in a number of manufacturing plants, and sufficient details are given to serve as a guide in the establishment of similar organizations. This bulletin should be of interest to all teachers or administrators of industrial education, calling attention as it does to one of the newest developments in corporation-school development. It is a departure which connects very closely with continuation, co-operative, and evening-school instruction as now being organized under the Smith-Hughes act.

7. *Grading Pupils in Vocational Subjects.* Bulletin by D. J. MacDonald, 117 Merchants Bank Building, Indianapolis, Indiana. Pp. 15. 15 cents.

Teachers of industrial subjects, along with those having to do with the older subjects of the school curriculum, are dissatisfied with the rule-of-thumb methods of grading the work of students. The material presented in this bulletin is the result of an attempt on the part of a number of vocational teachers to standardize their grading systems. Regardless of the general applicability of the details presented, the discussion should be helpful to all those interested in the general problem of students' grades.

8. DEWEY, JOHN. "Vocational Education in the Light of the World War," *Bulletin No. 4*, January, 1918. Vocational Education Association of the Middle West, 1225 Sedgwick Street, Chicago.

This bulletin discusses the reorganization of industry to meet war needs and calls attention to the demand for continued readjustment and socializa-

tion of industry after the war. The author points out desirable and profitable post-war uses for a large part of the plant called into existence by the war emergency.

## II. BOOK NOTES AND REVIEWS

WADDLE, CHARLES W. *An Introduction to Child Psychology*. Boston: Houghton Mifflin, Co., 1918. Pp. xv+317.

This new text in the "Riverside Textbooks in Education Series" is, in many ways, a valuable addition to the available textbooks in education. The author has summarized in a careful, systematic manner a large quantity of literature in the field of child psychology. He makes frequent reference to the scientific literature and enables the reader to follow the subject further into the more technical monographs and treatises by means of extensive bibliographies at the end of each chapter. It is a question, however, whether these bibliographies are not so extensive as to be somewhat impaired in value for the reader who is not far advanced in his knowledge of the field. It is for the relatively immature student that the book is evidently intended, but such a student is likely to be bewildered and discouraged by such arrays of references. A simple and a carefully selected list is, in the opinion of the reviewer, likely to lead more effectively to additional reading on the part of the student.

The scope of the topics covered in the book is similar in its general character to the other textbooks in the field. There are, however, certain topics which are emphasized more than is usual, and some less. Among topics which are especially emphasized are those which concern the general fundamentals of the subject as contrasted with the special facts of the child's mental development. Such topics are the historical background of the scientific study of children, the methods of such study, the biological perspective, including the theory of descent and evolution, the cell and methods of development of the cell, and finally an account of heredity. These fundamentals occupy four chapters, or about a third of the book. While a certain amount of general knowledge of biology and the methods of study is desirable, it does not seem to deserve as much space as is here given to it. This criticism also rests upon the fact that certain other topics are either omitted or are treated in a briefer manner than is desirable.

Among the topics which are entirely omitted is the physical development of the child and his feelings and attitude in reference to sex. There is also no discussion of religious development. This last omission may perhaps be advisable in view of the somewhat uncertain character of our

knowledge in this field, but it is at least possible to describe some of the outstanding facts and discuss some of the problems which these involve.

The chapter on physical development of the child seems to the writer important because of the intimate relationship between physical growth and mental capacity and the changes in capacity with different periods of development.

The intellectual development is treated in one chapter which comprises about one-thirteenth of the book. The author was himself associated with some of the investigations which by means of mental tests have thrown light on the child's intellectual development. There is opportunity to use this material to a much greater extent than has yet been done in describing the child's intellectual growth. It is a matter of regret that the author has not made fuller use of the results of tests.

A useful feature of the book is the glossary of the chief terms which may need definition. Criticism may be made of some of these definitions. The definition of "anthropology" as a science of man as a member of the social group would not include the study of physical growth, which is certainly an important topic in this science. "Delinquent" is confined to children in the definition, whereas it may be applied to adults as well. "Neurosis" and "psychosis" are defined as normal processes, while in recent usage they are commonly confined to pathological processes.

In general, the positions taken by the book are sound and there is no disposition to the adoption of extreme theories. Use is made of the material which has been gathered from the Clark School, but good judgment is displayed in using and judging the theories of this school, as, for example, the theory of recapitulation. Some material which has appeared since some of the earlier books were written has been utilized, and the book, therefore, is a contribution in bringing the subject down to date. It will be accepted as a modern and safe presentation of the main facts of the child's mental growth.

UNIVERSITY OF CHICAGO

FRANK N. FREEMAN

BLUNT, KATHARINE, and POWDERMAKER, FLORENCE. *Food and the War. A Textbook for College Classes*. Prepared under the direction of the Collegiate Section of the United States Food Administration with the co-operation of the Department of Agriculture and the Bureau of Education. Boston: Houghton Mifflin Co., 1918. Pp. 379. \$0.80.

This volume is made up of two parts, the first dealing with the general subject "Food and the War" written by Katharine Blunt, of the University of Chicago, with the assistance of Florence Powdermaker, of the Department

of Agriculture, and the second part containing a laboratory manual of food selection, preparation, and conservation prepared by Elizabeth C. Sprague, of the University of Kansas. The material consists of revisions of the outlines for the courses prepared for college classes and sent out week by week during the spring of 1918. The form in which this valuable material now appears should add much to its convenient and effective use. Teachers who have heretofore had access to the material only in outline form will be delighted to know that it can be secured in a form much more serviceable. Since the contents of the book are no doubt rather well known, it doesn't seem worth while to give more space to the book here.

BOBBITT, FRANKLIN. *The Curriculum*. Boston: Houghton Mifflin Co., 1918. Pp. viii+295

Professor Bobbitt's book is not simply another discussion in the field of education. It is in reality a *new* book in a much too little cultivated field, namely, that of curriculum-formation. It is written with a belief that to know what to do is as important as to know how to do it, and that in the social and educational reconstruction of the post-war years there will be much need of a well-defined theory of curriculum-formation.

The book is made up of six parts, titled as follows: "Ends and Processes"; "Training for Occupational Efficiency"; "Education for Citizenship"; "Education for Physical Efficiency"; "Education for Leisure Occupation"; and "Education for Social Intercommunication." Such topics as educational experience on the play-level and on the work-level, the place of ideas in work-experience, where education can be accomplished, and scientific method in curriculum-making are discussed in Part I. Purposes of vocational training, specialized technical training, specialized training for group-workers, and social aspects of occupational training are the topics treated in Part II. The value of the good citizen, the development of enlightened large-group consciousness, and moral and religious education are treated in the third part. Part IV contains a discussion of physical training from the standpoint of its social factors and the fundamental task involved in it. Parts V and VI contain chapters on the function of play in human life, reading as a leisure occupation, the mother-tongue, training in foreign languages, and some general conclusions.

The volume is designed for reading circles in the training of teachers in service; for the general reader who desires a speaking acquaintance with recent educational tendencies; and for teacher-training institutions as an introductory textbook in the theory of the curriculum. The vast quantity

of new and fresh material, the stimulating suggestions, and the pedagogical unorthodoxy which saturates the discussion throughout will add greatly to the effectiveness of the book when it is used for any of the foregoing purposes.

POWERS, H. H. *America and Britain. The Story of the Relations between Two Peoples.* New York: Macmillan, 1918. Pp. iv+76 \$0.40.

History teachers will in the future place much more emphasis on our relations with Great Britain than they have in the past. The Great War is responsible for this new emphasis in our history teaching. The story of our relations with Britain has been well told in the little volume under review. In telling this interesting story the author has centered his attention on the following major topics: "The British Origin of America"; "The Rupture with England"; "Independence and the Peace Crisis, 1783"; "America and the Napoleonic Crisis, 1812-1815"; "The Crisis of the Boundaries, 1815-1848"; "The Crisis of the Civil War, 1861-1865"; "The Crisis of Arbitration, 1881-1899"; "The European Crisis Begins, 1897-1898"; and "The Super-Empire." The story of these great crises is told in an easy and interesting manner. The teacher of American history will find the story interesting and very valuable. In fact, high-school Seniors could read each chapter with interest after the period in history with which the story deals had been completed. The layman will also find the story well worth his reading.

TURKINGTON, GRACE A. *My Country. A Textbook in Civics and Patriotism for Young Americans.* Boston: Ginn & Co., 1918. Pp. vi+394.

Miss Turkington has added another book to the list of texts in civics for upper-elementary grades and junior high-school pupils. While this list is a rather long one, there are not many on it which have the strictly modern point of view in teaching civics in these grades. It can be truthfully said of *My Country* that it does contain modern and up-to-the-minute material. Another thing that can be just as truthfully said is that the material is presented in a concrete and appealing manner. The illustrations are well selected and the questions and problems at the end of each chapter have real merit. The book is for children and not for teachers. It aims to teach patriotism through concrete examples, and to prove to boys and girls that this is their country, not only when they grow up but right now. Throughout the book there is a strong emphasis on the fact that school boys and girls are citizens today instead of an emphasis on preparing for the citizens they are to be some time in the future. Teachers looking for a modern up-to-date book in the field of elementary civics will do well to examine *My Country* with some care before making a final decision on the matter.



### III. CURRENT PUBLICATIONS RECEIVED DURING THE PAST MONTH

#### PUBLICATIONS OF THE UNITED STATES BUREAU OF EDUCATION AND SIMILAR MATERIAL IN PAMPHLET FORM

- ANDREWS, BENJ. F. *The Land Grant of 1862 and the Land-Grant Colleges.* Bulletin, 1918, No. 13. Washington: Government Printing Office. Pp. 63. \$0.10.
- Course of Study for the Elementary Schools of Berkeley, California.* Berkeley Public School Department, 1917-1918.
- Course of Study, Intermediate Schools. Seventh, Eighth and Ninth Grades.* Berkeley Public School Department, 1917-1918.
- EARHART, WILL, and MCCONATHY, OSBOURNE. *Music in Secondary Schools.* Bulletin, 1917, No. 49. Washington: Government Printing Office, 1918. Pp. 37. \$0.05.
- Educational Conditions in Arizona.* Bulletin, 1917, No. 44. Washington: Government Printing Office, 1918. Pp. 200. \$0.35.
- JACKSON, HENRY E. *A Community Center. What It Is and How to Organize It.* Washington: Government Printing Office, 1918. Paper. Pp. 52. \$0.10.
- JUDD, CHARLES H., and MARSHALL, LEON C. *Lessons in Community and National Life.* Washington: Government Printing Office, 1918. Paper. Pp. 264. \$0.25.
- LEE, JAMES MELVIN. *Instruction in Journalism in Institutions of Higher Education.* Washington: Government Printing Office, 1918. Paper. Pp. 16.
- NEUMANN, HENRY. *Moral Values in Secondary Education.* Bulletin, 1917, No. 51. Washington: Government Printing Office, 1918. Pp. 37. \$0.05.
- SMITH, DAVID EUGENE, and SEELY, CAROLINE EUSTIS. *Union List of Mathematical Periodicals.* Bulletin, 1918, No. 9. Washington: Government Printing Office. Pp. 60. \$0.10.
- THEISEN, W. W. *A Report on the Use of Some Standard Tests.* Madison, Wis.: State Department of Public Instruction, 1918. Paper. Pp. 120.
- WEEKS, STEPHEN B. *History of Public School Education in Arizona.* Washington: Government Printing Office. Paper. Pp. 141. \$0.15.

- WILSON, LOUIS ROUND, and WILLIAMS, LESTER ALONZO. *The Bureau of Extension of the University of North Carolina*. Bulletin, 1918, No. 7. Washington: Government Printing Office. Pp. 30. \$0.05.

## MISCELLANEOUS BOOKS AND PAMPHLETS

- BROADHURST, JEAN. *Home and Community Hygiene*. Lippincott's Home Manuals. Philadelphia: J. B. Lippincott Co., 1918. Pp. xiii+428.
- HARTMAN, L. O. *Foreign Missionaries in Action*. New York: Methodist Book Concern, 1918. Paper. Pp. 62.
- JONES, GEORGE HEBER. *Christianity and World Democracy*. New York: Methodist Book Concern, 1918. Paper. Pp. 54. \$0.15.
- KNUDSON, ALBERT C. *The Religious Teaching of the Old Testament*. New York: Abingdon Press, 1916. Pp. 416. \$2.50.
- NETTLETON, BERTHA E. *War Time Recipes*. Philadelphia: J. B. Lippincott Co., 1918. Pp. 43.
- SAYLER, JAMES L. *American Tithers*. New York: Methodist Book Concern, 1918. Paper. Pp. 48. \$0.15.
- TABER, C. W. *The Business of the Household*. Lippincott's Home Manuals. Philadelphia: J. B. Lippincott Co., 1918. Pp. xii+438. \$2.00.
- TAYLOR, S. EARL, and LUCCOCK, HALFORD E. *The Christian Crusade for World Democracy*. New York: Methodist Book Concern, 1918. Pp. 204. \$0.75.
- WINDLE, C. A. *Word Pictures*. Second Edition. Chicago: Iconoclast Publishing Co., 1918. Pp. 64.
- ASH, SHOLON. *The God of Vengeance*. Boston: Stratford Co., 1918. Pp. 99. \$1.00.
- CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Publication No. 15*, "The Imperial Japanese Mission," 1917. Washington, D. C., 1918. Pp. 125.
- THE GENERAL EDUCATION BOARD. *Report of the Secretary, 1916-17*. New York: The General Education Board, 61 Broadway. Pp. 92.
- MYRON, PAUL. *Bugle Rhymes from France*. Chicago: Mid-Nation Publishers, 1918. Pp. 138.
- OTIS, EDWARD O. *Tuberculosis: Its Cause, Cure and Prevention*. New York: Thomas Y. Crowell Co., 1918. Pp. xix+328.
- DEPARTMENT OF EDUCATION, CITY OF NEW YORK. *Annual Report of the Supervisor of Lectures to the Board of Education, 1916-17*. Pp. 105.

- A Bulletin of Information Concerning the Public Schools of Richmond, Ind.*  
Richmond, Ind.: Ballinger Press, 1917. Pp. 70.
- SCHULTZE, JAMES WILLARD. *Bird Woman*. Boston: Houghton Mifflin Co. Pp. 235. \$1.50.
- The Post Mark Collection Book of the United States of America*. The Corner, Montclair, N. J.: Brother Cushman, 1916. \$1.00.
- Publications of the Yerkes Observatory*.
- HALE, GEORGE E., and ELLERMAN, FERDINAND. *The Rumford Spectro-heliograph of the Yerkes Observatory*. Vol. III, Part I, 1903.
- HALE, GEORGE, and KENT, NORTON A. *The Spectrum of the High Potential Discharge Between Metallic Electrodes in Liquids and in Gases at High Pressures*. Vol. III, Part II, 1907.
- SLOCUM and OTHERS. *Stellar Parallaxes Derived from Photographs Made with the Forty-Inch Refractor*. Vol. IV, Part I. Chicago: The University of Chicago Press.
- POWERS, H. H. *America and Britain*. New York: Macmillan, 1918. Pp. 76. \$0.40.

#### GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

- BOBBITT, FRANKLIN. *The Curriculum*. Boston: Houghton Mifflin Co., 1918. Pp. viii+295.
- BUCHANAN, J. Y. *Drawing and Manual Training in Punjab Schools*, Pamphlet No. 1; and *The Education of Factory Children in India*, Pamphlet No. 2. Bureau of Education, India, 1918. Pp. iii+24; ii+26. 8 annas or 9d., and 6 annas or 7d.
- CALDWELL, L. L. *War Work Activities of the Monmouth Public Schools*. Monmouth, Ill.: Board of Education, 1917-18. Paper, Pp. 35.
- HOLLISTER, HORACE A. *The Woman Citizen, A Problem in Education*. New York: D. Appleton & Co., 1918. Pp. xviv+308.
- KRUSE, PAUL J. *The Overlapping of Attainments in Certain Sixth, Seventh, and Eighth Grades*. Contributions to Education No. 92. Teachers College, Columbia University. New York City, 1918. Pp. 91.
- LYON, DARWIN OLIVER. *Memory and the Learning Process*. Chicago: Warwick & York, Inc., 1917. Pp. 179.
- McFEE, INEZ N. *The Teacher, the School, the Community*. New York: American Book Co., 1918. Pp. 256.
- PARKER, SAMUEL CHESTER. *Exercises for "Methods of Teaching in High Schools."* Boston: Ginn & Co., 1918. Pp. Ex+E261. \$1.20.

- CURTIS, HENRY S. *Recreation for Teachers*. New York: Macmillan. Pp. 288. \$1.00. ✓
- NORSWORTHY and WHITLEY. *Psychology of Childhood*. New York: Macmillan, 1918. Pp. 374. \$1.60.
- HALL-QUEST. *The Textbook. How to Use and Judge It*. New York: Macmillan, 1918. Pp. xiv+265. ✓

#### BOOKS PRIMARILY FOR ELEMENTARY-GRADE TEACHERS AND PUPILS

- BLACKBURN, SAMUEL A. *Boy Activity Projects*. Peoria, Ill.: Manual Arts Press, 1918. Pp. 143.
- SPAULDING, F. E., and OTHERS. *Aldine Language Method, Parts One, Two, and Three*. New York: Newson & Co., 1913, 1914, 1917. Pp. x+274; xiv+173; xi+182.
- SPAULDING, F. E., and OTHERS. *Aldine Language Books, First, Second and Third*. New York: Newson & Co., 1913, 1914, 1917. Pp. viii+280; xv+331; viii+453.
- TURKINGTON, GRACE A. *My Country. A Textbook in Civics and Patriotism for Young Americans*. Boston: Ginn & Co., 1918. Pp. v+394.
- FOOS, CHARLES S. *School District of Reading, Pa.* Pamphlets One, Two and Three. Tentative Course of Studies: Language, Reading, Spelling, Arithmetic, Penmanship. Reading, Pa.: Department of Practical Arts, 1917, 1917, Revised 1918.

#### BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

- BERG, E., and KRONQUIST, E. F. *Mechanical Drawing Problems for High Schools, Normal Schools and Vocational Schools*. Peoria, Ill.: Manual Arts Press, 1918. Pp. 223. \$1.00.
- BETZ, WILLIAM. *Geometry for Junior High Schools*. Rochester, N. Y.: Board of Education, 1918. Pp. xvi+111. Paper.
- BETZ, WILLIAM. *Introductory Algebra Exercises*. Pamphlet. Rochester, N. Y.: Board of Education, 1918. Pp. vi+73. Paper.
- CLARK, J. MAURICE, and OTHERS. *Readings in the Economics of War*. Chicago: The University of Chicago Press, 1918. Pp. xxxi+676.
- CODY, SHERWIN. *Exercises in Business Letter Writing*. Revised Edition. Yonkers-on-Hudson, N. Y.: World Book Co., 1918. Pp. iv+59. Paper.

- . *How to Do Business by Letter*. Revised Edition. Yonkers-on-Hudson: World Book Co., 1918. Pp. 238.
- . *Word-Study and 100% Speller for Junior High School and Commercial Classes*. Yonkers-on-Hudson, N. Y.: World Book Co., 1918. Pp. (1) 127; (2) 94.
- DULL, C. E. *Essentials of Modern Chemistry*. New York: Henry Holt & Co., 1918. Pp. ix+458.
- LUPOLD, H. S. *Introduction to Latin*. Boston: D. C. Heath & Co., 1918. Pp. xiii+107.
- Progressive Music Series. For Basal Use in Primary, Intermediate and Grammar Grades*. By HORATIO PARKER, OSBOURNE MCCONATHY, EDWARD BAILEY BIRGE, and W. OTTO MIESSNER. Boston: Silver Burdette & Co., 1918. Pp. 192.
- ROTH, LAWRENCE V. *Old South Leaflets, Nos. 214, 215, 216, 217*. Abraham Lincoln on War and Peace; Letters and Miscellaneous Writings of Abraham Lincoln; Poems of Walt Whitman; Selections from Walt Whitman's Specimen Days. Boston: The Old South Association. Pp. 19, 20, 16, 16. 5 cents; \$4.00 per hundred.
- SHURTER, EDWIN DUBOIS. *Patriotic Selections*. New York: Lloyd Adams Noble, 1918. Paper and cloth. \$0.59 and \$1.00. Pp. 177.
- THE UNITED STATES FOOD ADMINISTRATION. *Food and the War*. Boston: Houghton Mifflin Co., 1918. Pp. 379. \$0.80.
- WENTWORTH, G., SMITH, D. E., and SCHLAUCH, W. S. *Commercial Algebra, II*. Boston: Ginn & Co., 1918. Pp. v+250. \$1.12 net.
- DURHAM, WILLARD H. *Midsummer Night's Dream*. New Haven, Conn.: Yale University Press, 1918. Pp. 96. \$0.50.
- FARR, CLUSTER C. *Laboratory Manual in Field Crops*. New York: Macmillan, 1918. Pp. 63. \$0.52.
- KISSELL, MARY LOIS. *Yarn and Cloth Making*. New York: Macmillan, 1918. Pp. 252. \$1.60.
- SMITH, WAYNE P., and JEWETT, EDMUND GALE. *An Introduction to the Study of Science*. New York: Macmillan, 1918. Pp. 620. \$1.40.
- TINKER, CHAUNCEY B. *The Tempest*. New Haven, Conn.: Yale University Press, 1918. Pp. 96. \$0.50.
- SAMPSON, H. O. *Effective Farming*. New York: Macmillan, 1918. Pp. xxiii+490.

